

U. S. Department of Education  
Office of Vocational and Adult Education

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**The Carl D. Perkins  
Career and Technical Education Act of 2006  
STATE PLAN COVER PAGE**

**State Name:** VERMONT

**Eligible Agency Submitting Plan on Behalf of State:**

Department of Education

**Person at, or representing, the eligible agency responsible for answering questions on this plan:**

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**Type of State Plan Submission (check *all* that apply):**

☒ 5-Year

☐ Unified - Secondary and Postsecondary

☐ Unified - Postsecondary Only

☒ Title I only (*All Title II funds have been consolidated under Title I*)

☐ Title I and Title II

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# **Part A: State Plan Narrative**

## **5 Year 2008-2013**

# Vermont State Plan 2008-2013

## Perkins IV

### EXECUTIVE SUMMARY

The information age, a global economy, new workplace expectations, and the rapid, continuous change of the 21<sup>st</sup> century are demanding education transformation. Today's students need new skills for success in life. Vermont's Career and Technical Education system must adapt to this new world. We must transform the focus of our CTE programming from occupational skills training to the broader, higher level, and more durable knowledge and skills within a career field. Occupational skill mastery alone can no longer be the CTE goal. CTE students must be prepared to enter college or a challenging career in modern workplaces where continuous learning and adaptability are the norm. Every CTE graduate must attain rigorous academic, technical, and employability skills.

To fully accomplish this for our students, all components of CTE will need to transform – state level CTE policy and funding mechanisms, program requirements, curriculum design, instructional practices, student assessment processes, CTE/high school/postsecondary/business partnerships, articulation agreements, program evaluation, teacher professional development, etc. Our challenge is truly the re-making of CTE in Vermont. While we made significant progress in the last decade moving away from the traditional vocational model, we have much to do to implement a 21<sup>st</sup> century CTE model. The breadth of career and college options available to our CTE graduates will be determined by the scope and success of this transformation. Our CTE graduates must have the skills to function as 21<sup>st</sup> century knowledge workers.

The new Perkins IV requirements offer a supportive framework for transformation and Vermont is committed to their full implementation during the five year grant period.

- Career cluster/career pathway structure
- Secondary/post secondary programs of study
- Size scope and quality criteria
- Technical skill assessments
- High skill/high wage/high demand career fields
- All aspects of the industry
- Comprehensive professional development

Vermont engaged many stakeholders in the development of our plan. We used a variety of regular meetings with the field as well as specifically held forums to hear from teachers, guidance counselors, business and industry, economic developers, education administrators, parents, and students. For more ongoing advice, Vermont convened a Perkins State Plan Advisory Committee, with secondary and post secondary representatives, to guide the Department of Education. This committee established five goals for CTE improvement during the 2008-2013 grant period. These five goals received broad support whenever they were shared at other state plan meetings. The five goals are:

1. Students in career and technical education programs will have strong career guidance services that include career development plans which articulate a multi-year sequence of academic and technical courses as a program of study leading to a student's career goals.
2. Students in career and technical education programs will gain proficiency in the employability skills demanded by 21<sup>st</sup> century workplaces.

3. Student learning outcomes in career and technical education programs will be shaped by industry standards and measured by valid and reliable assessments linked to skill credentials that offer value to students (e.g. PS credit; higher entry wage; registered apprenticeship hours).
4. Students in career and technical education programs will be able to transition efficiently from secondary to post secondary programs or employment.
5. Students in career and technical education programs will increase their participation in quality workplace learning experiences in industry settings pertinent to their career cluster/pathway.

The Department of Education then defined specific goals for re-inventing our CTE system for the 21<sup>st</sup> century in a way that best address the five student goals. These include:

- broaden the scope and sequence of CTE programming (i.e. occupational training vs educational preparation for a career field; grade 9-14 pathways of study that include academic and technical courses)
- dedicate Perkins resources to development and operation of priority CTE programming in high skill/high wage/high demand career pathways
- establish state level industry councils to validate what skill standards for CTE programs reflect all aspects of their industry and to support CTE program design and operation
- improve the quality of CTE instruction so students increase attainment in academic, technical, and 21<sup>st</sup> century workplace skills and document with credentials
- establish individual learning plans leading to career fields, expand dual enrollment, and strengthen student worksite experiences in the industry so students have greater college and employment choices
- strengthen student assessments of skill proficiency and performance accountability of Perkins recipients
- establish state level policy and tools to provide coherence for a statewide 9-14 Career & Technical Education System from Vermont's existing regional delivery structure (e.g. VT career clusters/pathways model; VT facilitated design/approval of programs of study; student skill assessments; state level consortia and articulations between secondary, post secondary, and industry; comprehensive professional development initiatives; new 21<sup>st</sup> century CTE quality criteria and accountability)

Both the student goals identified by the Advisory Committee and these Department of Education goals fit well with the Perkins IV requirements and the Vermont vision for the re-making of CTE.

## SCOPE OF WORK 2008-2013

With our purpose and goals clearly defined, we created a general outline of work and underlying agreements. Vermont will:

1. Establish a permanent CTE Advisory Board comprised of representatives from secondary and post secondary students and Perkins recipients, industry, high schools, Vermont Student Assistance Corporation, and leading CTE experts.
2. Adopt the national 16 career clusters organized into six super clusters. (See Appendix F)
3. Establish state design template for 9-14 programs of study
4. Identify and profile key Vermont economic clusters for prioritizing CTE programming and strengthening business partnerships
5. Establish a state level industry council for each priority career pathway
6. Facilitate the work of each career pathway council
  - a. Develop and validate core business functions within each career pathway and multiple end points where students might exit for career employment
  - b. Determine academic, technical, and 21<sup>st</sup> century workplace skills and set learning standards for each identified end point within the career pathway
  - c. Develop student assessments for each identified end point along the career pathway
  - d. Identify an ideal 9-14 program of study for each career pathway (sequence of learning opportunities students would need to attain learning standards)
  - e. Cross walk the content/learning objectives of existing secondary and post secondary programs to the learning standards, assessments, and ideal program of study defined for the career pathway
  - f. Identify gaps in existing course structures and needs for new course development and adjustments to existing curriculum
  - g. Define a final 9-14 program of study that identifies a non-duplicative sequence of academic and technical courses for each career pathway
  - h. Develop/implement a statewide “enrollment management plan” for each career pathway (i.e. marketing; evaluation/accountability mechanisms; sustainability)
  - i. Negotiate state level agreements with PS and industry to establish a value matrix for students who successfully attain learning standards of pathway (e.g. PS credits; hiring preference/wage differential; apprenticeship hours; summer employment)
7. Conduct and complete development work in 3 career pathways each year of the grant
8. Establish a program re-approval process to ensure existing programs adopt new program of study and adapt existing curriculum. Align NEASC evaluations with new expectations.
9. Facilitate secondary/post secondary articulations for the delivery of programs of study for designed career pathways, including implementation support
10. Develop and deliver a comprehensive, multi-year professional development sequence of learning opportunities for secondary and post secondary Perkins faculty that advances the 21<sup>st</sup> century CTE model (e.g. career pathway programs of study; student assessment; project based instructional practices; embedding employability skills within CTE programs)
11. Identify available IRC and commercial assessments that align with learning expectations for existing CTE programs and adopt as the state approved assessment for a program
12. Establish criteria and a process for state approval of locally developed assessments, including identification of programs that will use such an assessment
13. Develop state level student assessments for programs in priority pathway areas
14. Work with the Community College of Vermont to transition their existing College Readiness course to our secondary CTE providers and interested high schools
15. Develop CTE funding mechanism that will ensure statewide implementation of the career pathway programs of study
16. Develop/revise CTE policy to support statewide implementation of the career pathway programs of study



# I. Planning, Coordination and Collaboration

## A1. Conduct public hearings in the State [Sec. 122(a)(3)]

The Vermont Department of Education (VT DOE) conducted two public hearings, after appropriate and sufficient notice, on the draft Vermont Perkins IV Five-Year State Plan. The public hearings were conducted as follows:

1. February 27, 2008, Randolph Career Center, Randolph
2. March 6, 2008, Southwest Career Development Center, Bennington

Public hearings notification was implemented in the following newspapers:

- Burlington Free Press
- Times Argus
- Valley News
- Brattleboro Reformer
- St Albans Messenger
- Caledonia Record
- Newport Daily
- Rutland Herald
- Bennington Banner
- Randolph Herald

It was also posted on the VT DOE web site on the VT DOE website:

### ***NOTICE OF PUBLIC COMMENT***

The Vermont Department of Education is soliciting public comment on the VT Perkins IV Five-Year State Plan under the federal Carl D. Perkins Career and Technical Education Improvement Act of 2006 Public Law 109-270 (Perkins IV). This Act provides federal funds to Vermont to assist in improvement of career and technical education programs for students enrolled in career and technical education programs.

Information on Perkins IV is posted at  
[http://education.vermont.gov/new/html/pgm\\_teched.html](http://education.vermont.gov/new/html/pgm_teched.html)

Two public hearings on the Draft Vermont Perkins IV Five-Year State Plan will be conducted as follows:

Randolph Technical Career Center, Randolph  
February 27th, 2008 5:00 p.m. to 7:00 p.m.  
Snow Date February 28th

Southwest Career Development Center, Bennington  
March 6, 2008 5:00 p.m. to 7:00 p.m.  
Snow Date March 11th

Written comments on the Vermont Perkins IV Five-Year State Plan Draft may be submitted by mail to Kay Charron, Assistant Director of Lifelong Learning, Vermont Department of Education, 120 State Street, Montpelier, VT 05620-2510, or by e-mail to [kay.charron@state.vt.us](mailto:kay.charron@state.vt.us)

The deadline for submission of written comments is March 15, 2008.

## **A2. Summary of public hearing recommendations and agency's response**

The summary of the recommendations made at the public hearings and through written feedback with the VT DOE response is included in this plan in appendix D.

## **A3. State plan consultation [Sec. 122(b)(1)(A)-(B)]**

VT DOE formed the Perkins IV State Advisory Committee comprised of administrators from the secondary regional centers, VT Technical College, Community College of Vermont, Tech Prep coordinators and VT DOE representatives. The committee met for a series of meetings to explore key policy issues related to the State Plan. The committee made recommendations and suggestions for the content of the State Plan.

Additional public engagement meetings were conducted throughout the State of Vermont during the period of July through December 2007. Participants at these sessions *included teachers, guidance counselors, eligible recipients, representatives of tech-prep consortia; entities participating in activities described in Section 111 of the Workforce Investment Act Public Law 105-220; interested community members; representatives of special populations; representatives of business and industry; and representatives of trade/labor organizations in order to consult with the required stakeholders.* VT DOE consulted Governor James Douglas. The Vermont Workforce Development Council also reviewed and made comment on pertinent portions of the draft State Plan.

## **A4. Effective activities and procedures to facilitate informed participation**

To facilitate informed participation in the development of the State Plan by the various groups identified in A3 of this section, the VT DOE prepared baseline information materials and made them available to the various parties. For example, every member of the State Plan Advisory Committee was provided with the Perkins IV federal law, a copy of Vermont's transition plan for FY08, OVAE's state plan guidelines, sample products from other states regarding programs of study, technical skill assessments, the USDOE career clusters and pathways model, and other pertinent resources. In addition, draft sections of the State Plan were intermittently shared with both secondary and post secondary recipients for their formative feedback.

## **A5. Consultation with Post Secondary re: funding allocations [Sec. 122(e)(3)]**

VT DOE is the agency within the State solely responsible for secondary career and technical education as described in this section. VT DOE is responsible for the Perkins IV State Plan related to the use of funding for secondary career and technical education. All decisions regarding the State Plan, including funding allocations, were authorized by the Vermont State Board of Education. VT DOE also prepared the Perkins IV State Plan regarding postsecondary career and technical education with ongoing consultation and involvement with the Vermont State College System and their eligible institutions. No objections to the final draft of the State Plan were filed with the VT DOE.

## II. Program Administration

### A2. Career and Technical Education Activities

#### a. CTE Programs of Study

During Perkins IV implementation, Vermont will be working towards a transformation of our CTE programming to highlight the broader, higher level, and more durable knowledge and skills within a career pathway. Vermont will prioritize programming in high skill, high wage, and high demand pathways. We will redesign programming to strengthen the focus on all aspects of the industry and to ensure rigorous academic and technical content.

Vermont has adopted the national career cluster/pathway model as a fundamental structure for programming and longitudinal data collection at the secondary and postsecondary levels. We also identified 6 super clusters (Appendix F) to guide grade 9 & 10 introductory programming. Vermont currently offers CTE programming in 14 clusters and 33 pathways.

CLUSTERS	CURRENT PATHWAYS	Annual Enrollments	
		Secondary	Post Sec
Agriculture & NR	Agribusiness		49
	Animal Systems		47
	Environmental Services systems	14	
	Natural Resources Systems	65	
	Plant Systems	188	44
	Power, structural, technical systems	242	
Architecture & Construction	Design & Pre-Construction	235	131
	Construction	559	63
Arts & Communication	Printing Technologies	327	97
	Performing Arts	85	
	Visual Arts/video Technology	157	43
Business	Administrative/Information Support	76	69
	Business Financial Management	196	238
	Management	25	509
Education	Teaching/training		334
Health	Therapeutic Services	349	652
	Health Informatics	14	12
Hospitality	Lodging	21	
	Restaurants, Food & Beverages	351	
Human Services	Family & Community Services	295	292
	Personal Care Services	203	
Information Technology	Network Systems	103	179
	Programming	14	16
Law & Public Safety	Emergency & Fire Management	43	15
	Law Enforcement Services	93	155
	Legal Services	16	
Manufacturing	Production	213	
	Electromechanical Installation & Maintenance	253	
Marketing & Sales	Management/entrepreneurship	160	
Science & Engineering	Engineering		163
Transportation	Facility & Mobile Equipment Repair	549	60
	Power/structural/technical systems	9	
	Warehousing & Distribution	16	

This cluster/pathway structure will organize our programs of study and our secondary/postsecondary linkages. The Vermont DOE, with other State and regional stakeholders, has participated in an economic cluster analysis to identify priority career areas and the most profitable markets within each pathway so that we direct our CTE programming toward areas offering the greatest economic advantage for both students and economic development for the state. In addition, Vermont DOE has defined the high wage, high skill, high demand, and emerging career sectors.

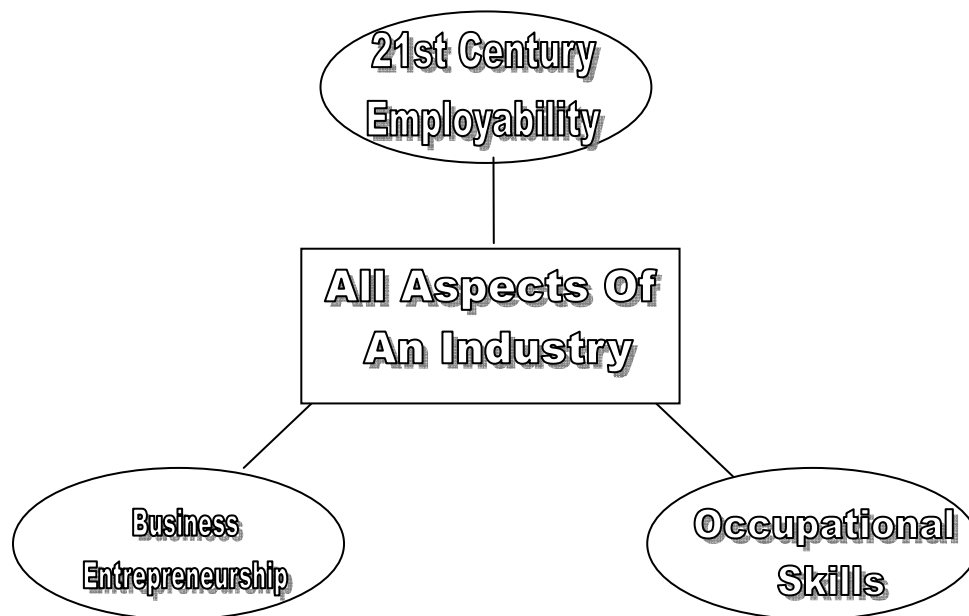
- High Skill:** A high skill pathway is one where
- ❖ 50% of the total employment within the pathway requires long-term on-the-job training or postsecondary training as a minimum educational requirement; OR
  - ❖ there is a minimum of 2000 positions in occupations in the pathway with an educational requirement of long-term on-the-job training or postsecondary education.
- High Wage:** A high wage pathway is a high skill pathway where
- ❖ 50% or more of the individual occupations within the pathway meet or exceed the median wage for all occupations in VT; OR
  - ❖ there is a minimum of 2000 positions in occupations in the pathway with a wage rate that exceeds Vermont's median wage for all occupations.
- High Demand:** A high demand pathway is a high skill pathway where
- ❖ total employment in the pathway exceeds the average total for all pathways (i.e. 4036+); OR
  - ❖ total openings in the pathway exceeds 40.
- Emerging:** Emerging careers are new or expanding growth occupations/industries identified as Vermont economic development priorities through a variety of sources including labor data, regional collaboration, national projections, economic cluster analysis, employer surveys, and public policy.

Our goal is to establish a priority list of high skill/high wage/high demand career pathways and occupational areas that will direct the development, approval and operation of CTE programs of study provided by Perkins recipients. See Appendix A for our initial draft of this list of priority career pathways in Vermont. We will be working collaboratively with the Vermont Department of Labor and with Vermont businesses to validate this list. This list will be finalized by July 1, 2008. The list will be updated as necessary, but updates will occur in no less than 3 years.

We will prioritize certain pathways for development of programs of study during the five years of this plan, based on our high wage, high skill, high demand findings. Once priority career pathways are identified and validated, the Vermont DOE will establish state level industry

councils to guide the development of CTE programming in each pathway. See Appendix E. There may be more than one council in a pathway. These councils will validate the core business functions in the pathway, validate the knowledge and skills that students need to attain for employment in the pathway, validate performance assessments and skill certificates in the pathway, and outline a desired program of study for the pathway. This process will depend on active business involvement and should strengthen CTE partnerships with business in very specific and tangible ways (e.g. workforce development; work based learning opportunities; third party assessments; job placements). Likewise, we will work closely with state college programs offering Associate and Bachelor degrees in the selected cluster/pathway. These secondary/postsecondary partnerships should yield dual enrollment options, faculty to faculty curriculum alignment and re-design work, teacher professional development and visiting between programs, and articulation agreements.

Curriculum, instruction, and assessment in each program of study must reflect all aspects of the industry as defined in the selected career pathway. Vermont has adopted its own all aspects of the industry program design model.



**“All Aspects of An Industry”** identifies the breadth and depth of knowledge and skills needed for learners to acquire a comprehensive understanding of an industry and to be a successful role performer within the industry. While these knowledge and skills are unique to each industry, the 3 aspects identified are common learning areas for any industry and must be reflected in the standards, curriculum, and assessments of every CTE program.

### **1. Business Entrepreneurship Knowledge & Skills**

- Core Business functions – project planning/management, operations and design
- Analyze customer needs, marketing and sales
- Business system management, process improvement and quality assurance
- Resources management – fiscal/accounting; time; materials
- Health, safety, and environmental sustainability within design and operations
- Managing human resources, culture, and ethical responsibility
- Technologies of the industry

### **2. Occupational Knowledge & Skills**

- Specialized academic and technical skills for expert role performance
- Meta-skills for enduring expert performance within the industry

### **3. 21<sup>st</sup> Century Employability Knowledge & Skills**

- Critical thinking & problem solving
- Creativity & Innovation
- Collaboration & Teamwork
- Communications (oral and written)
- Information Literacy
- Information & Communication Technologies
- Leadership & Responsibility
- Adaptability
- Initiative/productivity/self direction
- Global/cultural awareness
- Rigorous academic skills
- Continuous lifelong learning
- Core academics (reading; writing; math; science)

We will be defining our program competencies at a higher order skills level rather than simply the task completion level. This is essential to support learning transfer to new applications. We realize that task completion skills change quickly in the 21<sup>st</sup> century, so the meta skills in a career area are most critical. We define meta skills as the higher order capabilities that are taught through the application of a set of rigorous academic and technical skills in specific contexts. For example, in auto technology we will focus skill attainment on problem diagnosis, understanding systems, acquiring and processing information, and quality control protocols. The task completion activities such as repairing a specific set of brakes will be the context for learning the higher order skills. Curriculum, instruction, and assessment in each program of study will be modified to incorporate meta standards. These reforms will necessarily require innovative instructional techniques and faculty will need the support of comprehensive professional development.

Vermont has a program design template that guides the design of CTE programs. This program design template currently requires that each CTE program have

1. clearly defined student outcomes – career goals and skill standards

2. proof of economic advantage (verify how program supports employment within a high skills/wages/demand pathway as identified by VT DOE)
3. endorsements from industry and postsecondary
4. articulation agreements with the industry and postsecondary
5. valid/reliable student assessments aligned with identified skill standards
6. linkages to industry recognized credentials
7. a set of student skill standards that include
  - meta standards defining the highest order skills in the career field that experts work to master throughout their careers
  - technical content standards in the career field
  - academic standards most essential for success in career field
  - 21<sup>st</sup> century employability skills

We will modify this program design template to better align with Perkins programs of study and Vermont's new model for all aspects of the industry. In addition to the above 7 design elements, programs of study will

- ❖ provide a non-duplicative sequence of study grades 9-14, including curriculum outlines for an array of cluster, pathway, and specialization courses that ensures comprehensive understanding and skills for all aspects of the industry
- ❖ incorporate multiple career exit points
- ❖ be endorsed by the state industry council for the pathway
- ❖ provide a matrix of value added benefits for students who attain proficiency (e.g. entry wage differential; dual enrollment opportunities; extended industry work experience opportunities; apprenticeship hours; scholarships; industry recognized credentials)
- ❖ provide marketing strategies for careers in the pathway, including guidance services and student career/education plans

We are setting the standards at levels where CTE students will be prepared for both postsecondary education and employment in a high skill/high wage career. Each CTE program will be required to link with industry recognized credentials specifically relevant to the career field. This can be accomplished by adopting an industry recognized credential that already exists in the career field or by working with industry in the career field to create one unique to the CTE program.

Vermont will be moving away from its historical dependence on “stand alone” CTE programs at the secondary level. This model enrolled students into single full day or half day programs as the predominant delivery structure. As we move to more comprehensive programs of study, learning opportunities will be provided in a more flexible array of course offerings and learning opportunities within a program of study, including dual enrollment courses and cross

cluster courses such as entrepreneurship, business management, marketing, and work-based learning venues such as coops and apprenticeships and mentors etc. We will give special attention to linkages with registered apprenticeships as an alternative to more traditional post secondary education options. This more flexible structure will enable students to truly be exposed to all aspects of the industry. We will continue our work to better integrate academics and link our CTE courses more directly with academic courses being taken at our sending high schools. We will be introducing four year programs of study that identify both academic and technical courses a student should complete in each of the career pathways. We will work to strengthen guidance so that career planning becomes a key influence on course selection for all secondary students.

This approach to CTE programming will support CTE and high school integration. We are positioning CTE to be a leading component of Vermont's high school renewal efforts. As a component of high school renewal, CTE programming will be expanded to serve students in grades 9-12 and will reach a much broader spectrum of high school students, including those who desire professional careers. During this five year grant period, we will work to dramatically expand and strengthen collaborative projects between high schools and CTE centers to raise applied learning and rigorous academics for both.

**b. Development and implementation of CTE programs of study**

The CTE programs of study will be provided at the secondary level by 16 Regional Career & Technical Education Centers. The Community College of Vermont (CCV) and Vermont Technical College (VTC) will provide the CTE programming at the postsecondary level. This network of providers currently offer nearly 70 different CTE programs and serves approximately 7,800 secondary and postsecondary students.

The State Department of Education will be performing an expanded leadership role in the development and implementation of CTE programs of study. We will establish industry skill standards councils, facilitate meetings with industry and with our eligible recipients as we work to design CTE programs for selected pathways. See appendix E for a description of Vermont's Industry Skills Standards Councils. We have been piloting this process with several of our CTE programs. A basic outline of the process includes:

- Preliminary research and meetings with industry players to analyze all aspects of the industry in a pathway and to develop an initial list of student learning standards.
- Sharing and feedback from CTE teachers regarding draft learning standards and gaps in existing curriculum and capacity to provide needed instruction.



- Finalize student learning standards and develop proficiency assessments that will be required of students in the program of study. These should include pertinent IRC assessments, third party scenario assessments, and teacher administered formative assessments. The array of assessments must address the key learning standards identified for the program.
- Outline the best 9-14 program of study for the pathway with CTE teachers.
- Attain program endorsements and articulation agreements with industry and postsecondary for the program which provide incentives for student achievement such as college credit, apprenticeship credits, work experience opportunities, scholarships, etc.
- Adoption of program of study by the VT Department of Education.
- Teacher training and curriculum adjustment with CTE and academic teachers as needed for successful implementation.
- CTE program re-approval process to ensure that existing programs have adapted curriculum, instruction and assessment practices to align with new state design.

Full implementation with all our cluster/pathway programs will be a huge challenge. To bring this model to scale will require strategic efforts and aggressive professional development throughout the five year cycle of Perkins IV. All components of CTE will need to transform – program requirements, curriculum design, instructional practices, student assessment processes, CTE/high school/postsecondary/business partnerships, articulation agreements, program evaluation, etc. This will truly be a re-making of CTE to produce the 21<sup>st</sup> century knowledge workers demanded by industry. Occupational skill mastery alone can no longer be the CTE goal. Every student needs high level technical, academic, information processing and critical thinking skills when they complete a CTE program of study.

The state must provide the leadership, policy requirements, and funding mechanisms to move toward this CTE vision. The state will direct and facilitate the CTE program development process, work for state level articulation agreements with partners, lead on continuous professional development, including teacher mentorships, that will be needed by teachers and administrators working to transform CTE in their regions, and implement the quality control mechanisms essential to monitor and direct the change process. DOE has already begun work looking at policy and funding mechanisms that will be needed to move toward the vision.

The regional CTE centers and postsecondary institutions will work at the local level to transform programming and operations in alignment with the 21<sup>st</sup> century CTE vision. They will build and strengthen partnerships with academic teachers at the high schools. They will be working out new program schedules and satellite courses that support broader CTE participation.

They will be modifying curriculum and instructional and assessment practices to meet new program design expectations. They will be adjusting marketing and recruitment practices. They will be expanding worksite learning opportunities in the industry and dual enrollment options with postsecondary. They will be strengthening student support strategies to enable all students to accomplish the higher skills demanded by the new program designs. And they will be working in close partnership with the state to guide and support a more effective and coordinated Vermont CTE System that provides coherent education and training services that benefit students, businesses, and the state economy.

During the five year grant period, we will be developing and implementing CTE programs of study. We will prioritize our program development work on high priority pathways identified from our high skills/wages/demand analysis in combination with prioritizing our highest enrollment programs. We expect that current programming will be discontinued as the new program designs for priority clusters/pathways become fully developed. Industry, postsecondary, and regional CTE teachers and administrators will be primary partners with the DOE in this reform work. We have been building these partnerships. A Vermont team comprised of members of VT DOE, the Community College of Vermont and Vermont Technical College attended OVAE workshops in July 2007. Many of these same stakeholders were on our Perkins IV State Plan Advisory committee so we have reached common understandings and agreements on our CTE career pathways/program of study model.

In FY09, local recipients will be required to implement a minimum of one State approved POS. Secondary and post secondary recipients will be required to work as a team to develop POS to support non-duplicative course sequence and smooth transitions to post secondary. All new programs will be required to utilize the VT DOE program design template and a State approved POS structure. Local POS plans will need to demonstrate curriculum/assessment alignment with the state POS blueprint. VT DOE will develop a phase-in plan that will ensure that 50% of existing State approved programs will transition to a State approved POS by FY13. Implementation of State approved POS will be monitored by the VT DOE review process and will be an element of our scope, size and quality criteria.

**c. Secondary/Postsecondary Articulation Agreements**

Section A2 (a) above shows both the alignment and dissonance between secondary and post secondary CTE programming in Vermont. We have good alignment in the secondary/PS programming in most career clusters. We need to strengthen the alignment in Agriculture,

Education, Hospitality, and Manufacturing. This will require adjustments to programming in addition to work on articulation agreements.

There are many articulation agreements that already exist. The Vermont State College (VSC) system currently offers dual enrollment opportunities on-site at the regional CTE centers as well as the Community College of Vermont and Vermont Technical College campuses. Dual enrollment opportunities and articulation agreements will be a required element in State approved POS template. Articulation agreements with non-VSC postsecondary institutions will also be sought and required in the POS template. The funding mechanism to sustain dual enrollment and substantive secondary/PS articulations has been strengthened in recent years through special workforce development legislation.

There will be both state level and center level articulation agreements. State level articulation agreements will focus on required program student assessments. Our intention is that state level articulation agreements would be based on student performance on the array of assessments required by a program. The Department of Education will request articulation agreements with postsecondary institutions that offer degree programs in areas that align with secondary CTE clusters/pathways. We will also seek articulation agreements with industry. The state goal would be to reach agreements that provide direct value and incentive to secondary students to attain and demonstrate skill proficiency on required program student assessments – e.g. awarding of college credits, advanced standing, guaranteed admission, scholarships, apprenticeship hours, access to a worksite internship, temporary employment, guaranteed job placement interview, etc.

For example, we are currently working on program assessments for our new Auto Technology program. Once assessments are approved by the department of education, the Vermont Auto Dealers Association (VADA) will endorse these assessments and will work to negotiate a VADA recognized credential for students who excel on the assessments. We would work further for student benefits that VADA could attach to attaining the credential – e.g. applicant posting with VADA member companies; a minimum starting pay rate. DOE staff would negotiate with Vermont Technical College and others with the array of auto assessments and work to establish student benefits for students who excel on the assessments and attain a credential – e.g. credits awarded; advanced standing in degree program.

Center level articulation agreements already exist and would continue to be developed. This would allow centers to establish articulations with PS institutions that especially align with their program's curriculum and encourage local secondary/PS partnerships where faculty sharing and dual enrollment options could be developed. While center level articulation agreements

might focus more on working partnerships, they could also include direct student benefits such as awarding college credits or waived admission fees. These center articulations could be based on curriculum alignment or on student performance on state CTE assessments. They might focus on a smaller subset of the CTE assessments than a state level articulation agreement.

It will be important for the DOE and regional centers to work closely together to identify and plan articulation agreements so that the composite of state and center articulations are complementary. Our 9-14 program of study format will also help expand dual enrollment options and articulations.

**d. Marketing of Secondary CTE programs of study**

In current practice, the marketing of CTE programs of study has been conducted by the regional CTE Centers. They provide sending high schools with promotional materials, conduct CTE fairs, and offer introductory pre-CTE courses to encourage interest. These local practices will continue. In addition, the state DOE will be implementing a career planning requirement and process as a part of our high school renewal activities. We will work to move high schools to use a career planning context for all of their work with students on course scheduling. We will provide a 9-14 program of study model for each career cluster as a tool for high school guidance counselors supporting students with their education plans. CTE post-secondary partners, Community College of Vermont and Vermont Technical College have already taken steps in this direction through the development of a state-wide website – FAST Forward – that provides students, parents and guidance counselors with detailed information regarding articulation agreements and advance standing opportunities that link secondary and post-secondary programs. Through FAST Forward, secondary students are able to see 2+2 programs of study in seven different career clusters and request additional information directly from the post-secondary partners on a variety of career paths.

We have also begun to do some broader community promotion of select career areas. For example, we have been working on a marketing campaign for information technology careers as part of our National Science Foundation grant. Professional marketing consultants worked to produce visual and audio promotions for selected audiences – including students, parents, and workers. This resulted in measurable enrollment increases. We will work to expand marketing to parents to demonstrate that skilled technical careers offer financial benefits and job satisfaction.

We will also strengthen the CTE program information provided for public use on the VT DOE website and appropriate VT career and education web sites. This public access is provided

to market CTE programming to parents and potential students and to support Perkins recipients throughout the State to collaborate using promising programs and practices in order to progress towards our strategic goals for CTE in Vermont.

**e. Access to Technology**

To improve access to appropriate technology in CTE programs, the Vermont legislature appropriates an annual Equipment Replacement Fund and a Program Innovation Fund. This enables CTE centers to update their equipment and technology in various programs. We also maintain partnerships with industry who have and will continue to provide state of the art training to teachers and donate various technology important to the program of study. Our work with industry councils will strengthen this industry/education partnership even further. They also operate skill competitions and worksite learning opportunities that expose students to current technology in the field.

In addition, Vermont supports the use of both instructional technology and state-of-the-art industry technology by:

- including technology requirements as a component of our size, scope, and quality criteria (see Section A2 (f))
- requiring NEASC accreditation that includes technology criteria

**f. Criteria for approval of funds to eligible recipients**

Vermont has defined criteria for appropriate size, scope, and quality of CTE programming which sets the bar for funding eligibility. Eligible recipients are required to only expend Perkins monies for programs in compliance with our size, scope, and quality criteria. For eligible institutions/schools to receive Perkins funding, they must “provide services and activities that are of sufficient size, scope and quality to be effective.” (Perkins 2006: Section 135 b8). VT DOE has defined criteria for size, scope and quality that are applied at both the institution/school level as well as to individual CTE programs being offered. Expenditure of Perkins monies is restricted to institutions and programs that are in compliance with the criteria for size, scope and quality. An eligible recipient may expend Perkins funds to “improve, expand, and modernize” a program not meeting the size, scope and quality criteria for no more than two consecutive years. If after two consecutive years the program remains out of compliance with the criteria, no further Perkins funding can be expended on the program. For such a program to regain Perkins eligibility, it must show one year of performance where compliance with the size, scope and quality criteria has been attained.

VT DOE's criteria for size, scope and quality are specified below:

## **Size, Scope and Quality Criteria**

### **A. During the 2008-09 Perkins year,**

1. eligible secondary and postsecondary recipients will offer CTE programming in identified high skill/high wage/high demand pathways, that is in full compliance with existing state and federal regulations, in at least 3 of the national career clusters. Only CTE programming within an identified high skills/wages/demand pathway and with a three year average enrollment of 7 or more students will be counted.

1. Agricultural & Environmental Systems	2. Hospitality and Tourism
2. Architecture & Construction	10. Human Services
3. Arts & Communication	11. Information Technology
4. Business & Administrative Systems	12. Law & Public Safety
5. Education and Training	13. Manufacturing
6. Finance	14. Marketing & Sales
7. Government and Public Administration	15. Science & Engineering
8. Health Sciences	16. Transportation

2. eligible secondary recipients will demonstrate progress in strengthening high school/technical center partnership by:
  - a. demonstrate participation in regularly scheduled coordination meetings with administrators from all high schools in your region
  - b. establishing a written agreement with at least 2 high schools in your region to plan grade 9 & 10 introductory CTE courses in a program of study leading to grade 11 and 12 CTE programming in at least 1 super cluster to be operational by FY 2010
  - c. implementing one grade 11 & 12 extended collaborative project with at least two high schools in your region that involve both academic and CTE students in a relevant industry application that includes rigorous academics (e.g. math students at high school partner with CTE students in Manufacturing program to design a product for a real local industry)
3. eligible secondary and postsecondary recipients will prepare to implement at least one State approved Program of Study in 09/10. State approval requires that programs of study:
  - Lead to employment in high skill, high wage, high demand, or emerging careers identified on the VT DOE list of Priority Career Pathways
  - Incorporate skill standards in all aspects of the industry as described in the VT DOE model and aligned with business needs, expectations and methods
  - Offer instructional curriculum, facilities and equipment essential to attaining the skill standards
  - Use contextual and applied curricula and instruction as the primary delivery strategy, including such activities as CTSO participation, extended work/project-based and/or worksite learning experiences; collaborative projects with industry/high schools as described in 2c above
  - Integrate rigorous academic and career and technical education courses that provide a non-duplicative and progressive learning sequence supporting attainment of the skill standards
  - Span grades 9 through 14
  - Use state approved valid and reliable student assessments to document attainment of skill standards
  - Offer a matrix of value added student benefits for attaining skill proficiency (e.g. state approved industry recognized credentials; dual enrollment opportunities and articulated transitions to PS; apprenticeship credits; scholarships; employment and wage preferences; advanced standing in PS; PS credits)

- **By 2013,**
  - eligible secondary and postsecondary recipients will offer CTE programming in at least 5 of the national career clusters.
  - eligible secondary and postsecondary recipients will offer at least eight State approved Programs of Study. Perkins recipients must show annual progress toward this 2013 goal by implementing additional programs of study each year until achieving the required 8 pathways.
  - eligible secondary recipients will demonstrate participation in regularly scheduled coordination meetings with administrators from all high schools in your region
  - eligible secondary recipients will offer grade 9 & 10 introductory CTE courses in a program of study leading to grade 11 and 12 CTE programming in at least 5 career clusters and at every high school in your region.
  - eligible secondary recipients will offer grade 11 & 12 extended collaborative projects with at least three high schools in your region and in at least 5 career clusters that involve both academic and CTE students in a relevant industry application that includes rigorous academics (e.g. math students at high school partner with CTE students in Manufacturing program to design a product for a real local industry)

**C. Beginning 09/10 school year, eligible Perkins recipients must attain annual performance indicator thresholds, at both the institutional and individual program level (when appropriate).** Existing CTE programs, operated by eligible Perkins recipients, who fail to attain annual performance indicator thresholds for two consecutive years will no longer be included as a CTE program eligible for continued Perkins funding. The VT DOE has established the following performance indicators and tentative FY09 thresholds:

#### ❖ **Student retention**

<b>Indicator</b>	<b>Secondary Threshold</b>	<b>Post Secondary Threshold</b>
CTE Concentrator Rate	50% (VTS1)	40% (VTPS1)
Student Retention/completion	90% (3S1)	90% (3P1)
NT Completion Rate	15% (6S2)	15% (5P2)
Rate that PTF participants return to enroll in a CTE program	25% (VTS8)	NA

#### ❖ **Student skill attainment demonstrated through assessments**

<b>Indicator</b>	<b>Secondary Threshold</b>	<b>Post Secondary Threshold</b>
Technical/academic Skill Attainment	50% (2S1)	50% (1P1)
Skill Assessment Participation Rate	33% (VTS2)	33% (VTPS2)
Academic readiness for college as demonstrated through passing VT State College entry exams	33% (VTS9)	NA

#### ❖ **Student credentials**

<b>Indicator</b>	<b>Secondary Threshold</b>	<b>Post Secondary Threshold</b>
Graduation Rate	90% (4S1)	50% (2P1)
Earned Industry Recognized Credential	20% (VTS6)	15% (VTPS3)
Earned PS transcript credits	2% (VTS7)	NA

#### ❖ **Student placements after completing program**

<b>Indicator</b>	<b>Secondary Threshold</b>	<b>Post Secondary Threshold</b>
PS Placement	48% (VTS4)	NA
Transfer to Bachelors Program from AA	NA	33% (VTPS4)
Placement in Relevant Employment	25% (VTS3)	25% (VTPS5)
Rate of Known Placement	70% (VTS5)	70% (VTPS6)

The VT DOE will adjust these FY09 performance indicator thresholds, if necessary, after reviewing actual performance levels for FY2008. Any adjustments will be completed no later than September 1, 2008.

Each Perkins recipient will submit needed data to track individual student, individual program, and institutional performance against these thresholds and to track any other state/federal requirements.



As described in parts a and b of this section, Vermont is working to reform CTE programming in response to the new demands of the 21<sup>st</sup> century workplace. The local plan process will direct centers to focus their Perkins IV monies on implementing substantive program improvements toward this vision. Because Perkins grants to centers are small (e.g. \$48,000 - \$250,000), local plans will require applicants to focus their Perkins initiatives in just 1-4 improvement project areas and that initiatives be comprehensive in approach, rather than isolated actions. The expectation is that centers will use Perkins funding to support substantive improvement projects that can truly raise the overall quality of a selected program. Improvement projects should address curriculum revisions, enhanced student assessments, strengthened high school, industry and PS partnerships, enhanced instructional practices that focus on higher order skills and integrate academic and technical skills.

Criteria for review of local applications will include:

- i. Selection of career pathways on which to focus improvement is justified by alignment with high skill/high wage/high demand occupational opportunities and analysis of current program performance and practices needing reform
- ii. Focused use of funds for substantive program improvement (i.e. no initiative funded below \$50,000)
- iii. Clearly defined improvement goals that align with the Vermont vision for CTE programming (i.e. broader, more durable and rigorous academic and technical skills; 21<sup>st</sup> century knowledge worker skills; priority career pathways; HS/industry/PS partnerships; all aspects of the industry curriculum design; program of study template; constructivist instructional practices; student assessments that are based in real work scenarios and embedded with instruction; industry recognized credentials linked to student incentives; 4 year programs of study & career guidance; professional development for teachers; size, scope and quality criteria)
- iv. Multiple improvement strategies that in unison truly support reforms to a program that raise the rigor and relevance of student learning in CTE
- v. Identified methods of evaluating success of implemented reforms in raising student achievement
- vi. Provide program model that could be easily used by others in the state

We believe this policy framework embedded in the local plan process will promote continuous improvement in academic achievement; continuous improvement of technical skill attainment; and better align programs to current or emerging occupational opportunities. The VT DOE has developed the Local Plan Application with detailed instructions for local applicants to follow in submitting their Perkins IV Five Year Local Plan. The VT DOE will review each Local Plan Application against the above criteria to assess local plan and recipient eligibility, prior to the allocation of funds. Performance concerns within the 5 year period of the plan will be addressed by VT DOE within the local plan annual update. VT DOE will work with each local applicant and notify applicants of areas in need of improvement. Local applications that do not adhere to directions and demonstrate compliance with Perkins IV and Vermont requirements will not be funded. See Appendix B for the design of our Local Plan Application

**g. CTE students prepared to graduate with a diploma**

Vermont already has a relatively high graduation rate – FY06: 85% for overall 4 year cohort and 92% for a CTE cohort. Many at-risk students who enroll in CTE significantly raise their likelihood of graduating. The re-design of CTE programming to focus on 21<sup>st</sup> century thinking and learning skills and to integrate academic and technical education, however, will contribute to the efforts to raise Vermont's graduation rate even higher. A number of our initiatives should be helpful:

- 4 year programs of study
- Strengthened career guidance
- Clear, challenging learning standards and improved student assessments
- Ability to identify students needing extra support and differentiated instruction
- Strengthened partnerships between CTE centers and high schools
- *All aspects of the industry curriculum & instruction*
- Industry credentials and postsecondary articulations that offer diploma+ incentives could raise student motivation to graduate
- Increased relevance of learning when linked directly to real world success
- Applied academics integrated with technical skill contexts
- Increased percentage of 9-12 students who enroll in CTE

**h. CTE students prepared for postsecondary education or entry to occupations**

Preparation for postsecondary education or entry into skilled careers is the standard Vermont is setting for all secondary education and CTE programs. National research has shown that the skill levels for both are equivalent. Vermont is using the fundamental components of the Tech Prep model for all of our CTE programs:

- Secondary/postsecondary articulation agreements
- 2+2 programs of study leading to high skill careers
- Integrates academic and technical skill instruction in applied contexts
- Leads to industry recognized credentials and degrees
- Strong, ongoing professional development for teachers and administrators
- Strong career and educational guidance
- Special support for students' learning needs

Our commitment to have a Tech Prep standard for all CTE programs was the basis of our decision to merge Title II monies into the basic Title I grants.

To enhance readiness for entry into skilled careers, Vermont is working more closely with industry to identify skill sets and education and training needs for a successful workforce. National research has determined that skill proficiency needed for careers is equivalent to skills needed for college. Vermont will be updating all of our CTE program competencies as described in parts a, b, c, and f of this section.

**i. Improve or develop new CTE courses**

The process for improving and developing new CTE programs will be the focus for Perkins IV expenditures in Vermont. We are launching a significant “re-making of CTE” in response to the changing demands of the 21<sup>st</sup> century workplace and our high school reform efforts. Both secondary and post secondary CTE programs will evaluate their alignment with workforce skill needs and adjust learning expectations, curriculum, instruction and assessment as needed. It will be a challenge to complete the evaluation and re-design of CTE programs during the 6 year Perkins IV authorization. The work process for clarifying workforce skill needs and redesigning programs to ensure alignment has been described in some detail in the above a-h parts. Each CTE program will be reviewed and re-designed to fit with Vermont’s new CTE vision. This will require much planning and dialogue with industry, high schools, and PS institutions as CTE works toward reform. In addition to the above descriptions of reform activities, Vermont will also be working to implement better quality control mechanisms for CTE. This will include better data collections, program approval and re-approval processes, and ongoing program evaluation mechanisms. Vermont has identified and established state performance indicators to enhance the federal performance indicators. See appendix C. These State performance indicators are not part of our Perkins IV State Plan but are provided here for your reference.

**j. Facilitate best practices to improve quality and student achievement**

Vermont is merging Tech Prep Title II monies into our basic grants. We made this choice because we are setting high standards that mirror Tech Prep expectations for all of our CTE

programs. This will necessitate significant re-design of programs and professional development for teachers. To support reform, we will make focused efforts to coordinate communications on best practices. Specific efforts to facilitate best practices will include:

- Required sharing of program re-design models in the local plan process
- Meetings of career cluster teachers to work on curriculum design tasks
- Website/listserve exchange of lesson plans and formative student assessments
- Professional development series to highlight best practice models
- State level showcasing of successful programs

**k. Linking academic and CTE to increase student achievement at both secondary and postsecondary levels**

Perkins IV monies will be dedicated to re-designing CTE program learning expectations, curriculum, instructional practices and student assessments. The primary focus of this re-design effort is to integrate academic and technical skill development and to give priority to the broader, more durable skills needed to be successful in a career field. Perkins Leadership funds will be used to support the state to structure learning expectations and construct student assessments for each career area in conjunction with industry, PS and CTE centers that integrate academic and technical skills. Local plans will require that centers expend their funds on program improvements (e.g. curriculum, instruction, assessments, technology, professional development) needed to increase student achievement to the newly defined learning expectations.

**l. Evaluating and Reporting on CTE academic integration**

Secondary and PS CTE programs are required to report on state defined data elements, including student achievements. Currently, academic and technical skill attainment by students is teacher reported and also calculated based on state academic assessments. This will continue. However, there are few structures that enable the assessment of both technical and academic skills applied together to complete career relevant tasks. Vermont will be working to implement a much stronger array of performance assessments within each of the career fields during Perkins IV that will give us better data on integrated academic and technical skill attainment. We will also need to substantively revise our data collection and database structures. This will occur incrementally throughout the six year authorization period. We have worked with recipients to establish new state level performance indicators and new data reporting expectations. While these are still tentative, we will be using 08/09 to field test these measures and establish baseline benchmarks. The goal is to establish such valid and reliable program quality measures that administrative actions such as program approval, funding, incentives, sanctions, corrective action

requirements, etc. could be triggered by the data. Certainly a cornerstone of this new program quality database would be the measurement of academic and technical skill integration. In addition, we will evaluate the extent of academic integration through a new program monitoring process to be developed and put in place in school 09/10. We hope to establish a “classroom walk through” process, as part of our monitoring, that will provide observable data on academic integration practices in actual classrooms. We will design and institute such an instructional observation tool similar to the “walk through” process used widely in Maine schools. The primary use of this walk through data will be to inform CTE teachers and administrators about instructional patterns in their programs, but it will also be used for evaluation purposes once the tool is tested and validated.

### **A3. Comprehensive Professional Development Plan**

Vermont will dedicate much of its leadership work to comprehensive professional development for faculty, administrators, and guidance counselors that directly supports the re-making of CTE as described throughout our state plan. Our professional development efforts over the next 5 years will focus on helping teachers and administrators to understand and implement:

- Career pathway programs of study
- Effective student assessments
- Curriculum based on industry standards and all aspects of industry
- Instructional practices that integrate rigorous technical and academic skills within an applied learning context

Professional development shall be designed to support the interfacing of secondary and postsecondary CTE faculty within a career pathway. We will also organize professional development for individual CTE centers and institutions. Professional development will include seminar series, curriculum design workshops, dissemination of research and informational materials that guide inquiry and self-learning, on-site teacher coaching, and facilitated forums for teacher sharing. Special efforts will be made to engage academic teachers at our CTE professional development activities. We will also work to utilize the professional development capacity of our Educational Support Agencies that provide learning opportunities for academic teachers but have historically not been involved with providing learning opportunities for CTE teachers. Every effort will be made to make maximum use of existing professional development forums. For example, we will work to modify our CTE Teacher Mentor Program for new teachers to incorporate how to implement the CTE reforms described throughout this state plan.

We will use a portion of our state leadership monies to organize and provide state level professional development opportunities. We will establish a professional development position at the VT DOE to provide leadership for state coordinated professional development efforts and also to offer guidance to local recipients in their own professional development investments. The local plan requires each recipient to describe their own professional development plan which defines clear goals/objectives and subsequent activities which demonstrate how their professional development is well focused, sustained, and of sufficient quality and scope to be effective. We will also establish a CTE Professional Development Council to work with us in establishing a multi-year professional development state plan and ongoing evaluation of the effectiveness of Vermont's overall CTE professional development efforts.

We will work to establish an individual professional development process that tracks teacher skills against a set of newly defined qualifications and skills for CTE teachers. This will help schools and individual teachers plan their own professional development and link it to teacher certification requirements. We will work to align teacher performance evaluation criteria and practices with the profile of teacher expectations for our desired 21<sup>st</sup> century CTE system.

#### **A4. Recruitment and Retention of CTE Faculty**

Vermont has a teacher mentor program which allows persons from industry to become a licensed CTE teacher without the traditional teacher preparation college courses. This CTE Teacher Mentor program provides a provisional license option and several years of on-site instructional support. This has been invaluable to recruiting and retaining CTE faculty. Vermont has also worked to ensure parity between CTE and academic teacher licensing and wages in such areas as guidance counselors, business education teachers, special needs teachers, school administrators. This supports mobility for academic faculty to easily enter CTE.

#### **A5. Transition of CTE students to baccalaureate degree programs**

Vermont has been working to strengthen secondary and post secondary transitions. Because our primary PS providers are within the VT State College system, there are existing articulations between our associate degree institutions and our baccalaureate degree institutions that support student transition. Credits earned in the associate degree program are easily transferred to the baccalaureate program. Many students enter a baccalaureate degree program from our Community College. VT DOE has established a state indicator for tracking the transfer

of CTE associate degree students into baccalaureate programs. In addition, our secondary CTE programs have been working to embed rigorous academics that would be critical to college success.

#### **A6. Community involvement in the planning, development, implementation, and evaluation of career and technical education programs [Sec. 122(c)(5)]**

There are several ways the VT DOE and local recipients involve community members in the planning and evaluation of CTE programs. At the local level, each recipient has a Regional Advisory Board (RAB) to guide programming. RAB's approve CTE programming to be offered by the recipient. RAB's have a membership that involves industry, academic/technical teachers and guidance staff, local businesses and service agencies. In addition to the RAB's, recipients also establish program advisory committee's for more targeted guidance in a career field. In addition, many programs have strong industry partners. For example, the VT Auto Dealers Association has a strong influence on the nature of our auto technology programs, provides industry resources to programs, and facilitates student workplace experiences.

#### **A7. Integrating Academics and All Aspects of the Industry [Sec. 122(c)(7)(A)-(C)]**

Item A2a above describes our model for all aspects of the industry. Vermont will also be implementing 9-14 programs of study that integrate a sequence of both academic and technical courses. As described above, Vermont has a program design template that emphasizes rigorous academic and technical skills when defining skill standards for a program. Item A2 b, f, g, and k all highlight our work on integrating academics.

#### **A8. Providing Technical Assistance**

The Lifelong Learning Division of the Vermont Department of Education is responsible for implementing the Perkins IV state plan. Under the direction of the State Board of Education and Commissioner of Education, it will provide CTE policy leadership and technical assistance necessary to support a 21<sup>st</sup> century technical education system and manage the Perkins IV grant administration. We will provide technical assistance by:

- Involving recipients in policy development research and discussions
- Designing, implementing, and educating recipients on key CTE structures (e.g. new program design template; local plan process; funding mechanisms; program approval; database reporting; labor market demands; industry recognized credentials)

- Engaging industry to re-define student learning expectations in career fields and establishing student assessments for CTE programs
- Providing information systems that inform continuous quality improvement efforts
- Coordinating CTE performance with other state initiatives such as high school renewal, workforce development, college transition, teacher licensing, etc.
- Providing in-service education for technical educators
- Being a clearinghouse for state and national best practices and program models
- Providing on-site and ongoing consultation to recipients on both state and local improvement projects
- Advocating the value of CTE as an integral part of secondary education for all students

#### **A9. Aligning CTE programming with occupational opportunities [Sec. 122(c)(16)]**

Vermont labor market data is available at the VT Department of Labor, Labor Market Data web site at <http://www.vtlmi.info/>. Available documents include the Vermont long term occupational projections 2004-2014. The VT DOE is collaborating with the VT Department of Labor in a data project designed to link Vermont's CTE programming with the VT labor projections. Through the alignment of cluster, pathway and program information with the Vermont median wage, median number of openings and required training/education for each occupational code, the VT DOE will define high wage/demand/skill programming for CTE. Our high skill high wage, high demand, and emerging definitions are in section II A2a and our initial list of priority pathways is in Appendix A.

VT DOE, in September 2007, embarked upon an initiative to align CTE programming with the State's economic clusters. Through a facilitated discussion led by national experts in economic clusters, VT DOE began the process of clarifying the Vermont economic clusters and identifying potential economic clusters which may be of significant importance to the growth of Vermont's rural economy. While this is a long process, the VT DOE has enlisted the broad spectrum collaboration of numerous State agencies, regional non-profit organizations, local workforce investment boards and business/industry representatives. The information developed through this study will inform the future directions for secondary and postsecondary educational programming and will compliment the data derived from the high wage, demand, skills criteria.



## **A10. Methods to coordinate CTE programs with other Federal education programs [Sec. 122(c)(17)]**

The VT DOE provides several methods to ensure coordination of education programs. Management team meetings facilitate information exchange and identification of opportunities for improved program coordination. There are also a variety of cross division work groups which provide coordination at a more operational level. For example, the Director of CTE is a member of the VT DOE's secondary transformation team. This provides CTE with direct links to No Child Left Behind school improvement policy and initiatives. It also links CTE with other federal grant application processes such as the recent Small Learning Opportunities grant. The VT DOE is also just establishing a cross division structure called communities of practice (COP's). These COP's will be groups that focus on data analysis, student assessments, instructional practices, student support, etc. These COP's facilitate coordination among federal education programs.

## **A11. Procedures to ensure coordination and non-duplication with WIA programs for postsecondary students and school dropouts [Sec. 122(c)(20)]**

The Director of Career & Technical Education is a member of the Workforce Development Council and the Commissioner of Education is a member of the Workforce Development Leadership Committee. This provides a forum for coordinating Perkins funded activities with WIA programs and avoiding duplication.

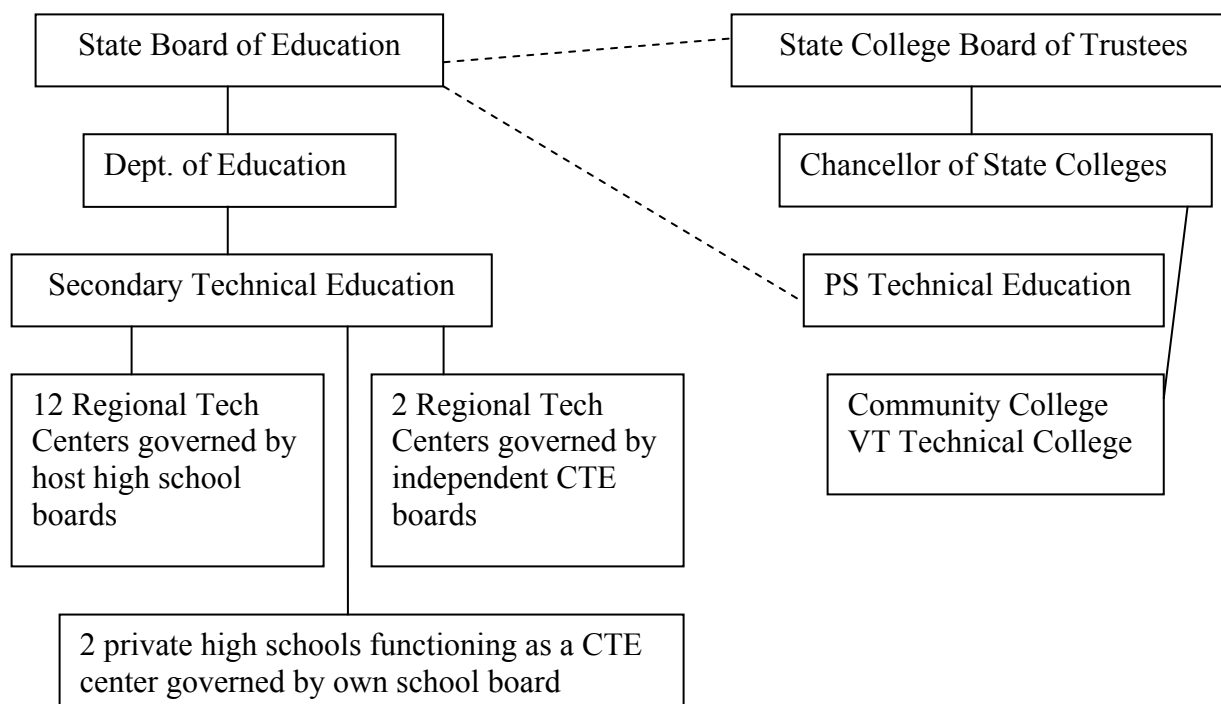
## **B1. Copy of Local Applications for Secondary and Postsecondary**

See Appendix B. The final format for the local application is yet to be completed. What is provided is a detail draft of what the final local application will include. It is very close to our final format and provides 90+% of the final version.

## **B2. CTE Governance Structure**

CTE is governed in Vermont by the State Board of Education. The Department of Education oversees policy and implementation of technical education under Perkins IV in Vermont. CTE education services are provided at the secondary level through regional technical education centers that are either governed by a host high school or an independent regional technical education school district. Postsecondary technical education, funded through Perkins, is provided through the state college system governed by the Board of Trustees and Chancellor

of the State Colleges. As you can see from the following chart, it is a very difficult governance structure to direct a statewide CTE system.



### **B3. Role of postsecondary CTE in the one-stop career center delivery system**

Community College of Vermont (CCV) and Vermont Technical College (VTC) are the two public institutions that provide the post-secondary component of career and technical education in Vermont. Both are members of the five college Vermont State College System (VSC) described above. In Vermont, twelve regional Department of Labor offices (formerly Department of Employment and Training) are the designated one-stop career centers. These centers are located in the same cities and towns as Community College of Vermont's twelve regional site campuses. CCV has no single central campus and serves Vermont's population through this decentralized and distributed site system. CCV site coordinators maintain close relationships with the one-stop career centers, and planning meetings between the two organizations generally occur twice a year. VTC also works closely with the one-stop career centers to promote its non-credit workforce development training for business and industries on a statewide basis. Additionally, the VSC Chancellor and the Commissioner of the Department of Labor are both members of the Workforce Development Leadership Team which coordinates all aspects of workforce development in Vermont, including the role of one-stop career centers. The President of CCV is a member of the Executive Committee of the state Workforce Development Council which plans and implements workforce development activities.

### **III. Provision of Services for Special Populations**

#### **A1. Strategies for Special Populations**

- a. Individuals who are members of special populations defined in Perkins IV are provided with equal access to the full range of CTE programs available to all students. Admissions guidelines ensure that all special population students have full opportunity to access technical education. Special population individuals shall be provided services in the customary CTE instructional setting with the minimal modifications needed to ensure success.
- b. Discrimination against individuals who are members of special populations is forbidden by Vermont State Board of Education regulations. In order to provide equal educational and employment opportunities, no student and/or public school employee in the State of Vermont shall be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity receiving federal and/or state funds.
- c. Vermont employs several strategies to support the success of special population students in CTE.
  - i. State policy and guidelines regarding reasonable accommodations
  - ii. Information systems that provide performance data on special population students
  - iii. Local centers employ special needs teachers and gender equity staff to provide individual student support and also to educate teachers on inclusion strategies.
  - iv. Local centers work closely with IEP teams to identify accommodations and instructional modifications needed to support success of each student
  - v. Individual tutoring and extra help are provided to students working to meet learning standards.

#### **A2. Needs of students in alternative education programs [Sec. 122(c)(14)]**

Students in alternative education programs are provided information on the career pathways and programs at the State's regional career and technical centers. Local applications require eligible recipients to additionally address how students in alternative education programs will be informed of opportunities and how their needs will be met.

Students applying for enrollment from an alternative program will be entitled to the Equal Access provisions granted ALL other students. Alternative education students will be enrolled in the same career and technical programs as the general populations. In the event that they require supplemental services and/or program modifications, those services will be provided by the staff within the career and technical center – i.e. special needs teachers. Students enrolling from an alternative program who have a disabling condition and require more intensive services will be referred to their sending school. Students enrolling from an alternative setting will be expected to maintain the performance levels of the general population.

#### **A3. How funds will be used to promote preparation for high-skill, high-wage, or high-demand occupations and non-traditional fields. [Sec. 122(c)(18)]**

State leadership funds for non-traditional preparation will be used to support technical assistance to the local recipients regarding non-traditional student support and gender equity. Vermont

used the Dempsey crosswalk and identified non-traditional (male and female) status for each of our 28 high skill, high wage, high demand pathways. Vermont is restricting the use of Perkins monies only for programs that have been aligned with the identified high skill, high wage, high demand career pathways. This is described in more detail in section II A2a and Appendix A. Many local recipients employ gender equity specialists to support CTE teachers and non-traditional students. We also fund several gender equity conferences during the year.

#### **A4. How funds will be used to serve individuals in State correctional institutions [Sec. 122(c)(19)]**

Vermont dedicates 1% of our Perkins monies for services to individuals in State correctional institutions. These funds are granted to the Vermont Department of Corrections who offer a variety of CTE programs for inmates. Funds are used for program improvement.

VT DOE issues to the State Department of Corrections, an annual Request for Proposals (RFP) for the amount of Perkins IV funds as prescribed in Section 112 (a) (1) (A). Funding provides inmates enrolled in career and technical education programs training and preparation for high skill, high wage, high demand occupations or emerging occupations. State correctional institutions seeking Perkins funds must submit a local application, responding to the requirements of the Act.

#### **A5. How local application will require applicants to describe the steps they will take to ensure equitable access and participation for students, teachers, and other program beneficiaries with special needs**

The Local Plan application requires eligible recipients to describe the steps that will be taken to ensure that individuals with special needs will be provided with equal access to programs and services under Perkins IV. VT DOE annually reviews each submission to ensure appropriate detail and content is provided and sufficient funding and activities are dedicated to this requirement.

Eligible recipients are required to submit a plan for the use of Perkins funds to implement programs that lead to high wage, high skill, high demand or emerging occupations. End of year reports describe the effectiveness of such efforts and provide the framework for changes and improvements for the following award year.

Vermont will continue to focus efforts for onsite reviews under the Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color National Origin, Sex and Handicap in Vocational Education Programs - 34 CFR, Part 100, Appendix B (Guidelines) issued by the United States Department of Education-Office for Civil Rights (OCR).

## **IV. Accountability and Evaluation**

### **A1. Input from eligible recipients establishing measurements**

The Department of Education facilitated a discussion with our State Plan Advisory committee. We explained each of the federal indicators and proposed measurement definitions and approaches for each of the core indicators of performance at both the secondary and post secondary levels. Using the feedback and advice, we then proposed a revised draft of measurement definitions and approaches. This draft was shared with all secondary and post secondary recipients along with a request for any final feedback.

### **A2. Eligible recipients input establishing state adjusted performance levels**

The Department of Education used available data, to the extent possible, to calculate an estimated baseline for the state adjusted performance levels. These baseline calculations were shared with the State Plan Advisory Committee, with the Association of Technical Center Directors at the secondary level and with key post secondary representatives with a request for feedback. The Department of Education then considered the collected feedback, finalized the desired targets for each indicator, and will submit final state adjusted performance levels to USDOE by inclusion in the State Plan.

### **A3. Description of Measurement definitions and approaches**

See forms in Part C.

### **A4. Alignment of Indicators with similar programs**

The Department of Education used data from student performance on state assessments in language arts and mathematics so academic performance measures for CTE students are consistent with other State and Federal programs. We calculated student graduation rates as defined in Vermont's ESEA accountability workbook. We worked with the Department of Labor and the Vermont Workforce Development Council to ensure alignment with their priorities and program indicators.

### **A5. State Performance Levels for Years 08-09 and 09-10**

See forms in Part C

### **A6. Process for Agreement on Local Adjusted Performance Levels**

The Department of Education will use available data, to the extent possible, to calculate an estimated baseline for each regional technical education center and for each of our post secondary recipients. These estimates will then be discussed in relation to the state performance levels with the Association of Technical Education Directors and with key post secondary representatives. Perkins recipients will submit local adjusted performance levels in their local applications. These will be reviewed and when necessary re-negotiated for final approval by the Department of Education.

## **A7. Criteria and Methods for Requesting Revisions to Local Adjusted Performance Levels if unanticipated circumstances arise**

An eligible recipient must request revisions to local adjusted performance levels through a written letter to the Department of Education. This letter must request the specific numeric adjustment desired and provide a rationale for the adjustment. Such requests for revision can only be made during the first 14 months of any 2 year performance period.

The criteria used to review such requests shall include:

- a significant change in number of student enrollments (i.e. 20%)
- a significant change in demographics of student enrollments (i.e. 20%)
- a significant attrition of teaching staff (i.e. 20%)
- a significant change in nature and scope of programming (i.e. 20%)

## **A8. Description of Data Reporting and Data Accuracy**

To ensure completeness and accuracy of data reporting, each eligible recipient will be trained to report via a state designed database. This database will restrict data entry options to controlled dropdown fields to minimize errors. We are working to implement consistent student assessments of technical proficiencies and phase out teacher reported skill levels. This will occur program by program over the Perkins IV period. The Department of Education will also conduct random student record audits for at least 3% of the student records.

## **A9. Consortium agreement for meeting adjusted levels of performance**

Vermont has only one CTE consortium. This is a consortium of two independent high schools which are recognized by the State Board of Education as working together to provide technical education in one CTE service region in the Northeast Kingdom. This consortium submits a single local plan for their Perkins award and will be jointly accountable for negotiating and achieving the local adjusted levels of performance in their CTE region.

## **A10. Description of Annual Evaluation of CTE Programs**

The Vermont CTE database provides annual performance reports at the state, regional center, career cluster, and program level. This enables the Department of Education and Regional Technical Center Directors to review performance on a wide variety of indicators (e.g. enrollments; core performance indicators; CTSO participation; work based learning placements; industry credentials earned; PS credits earned). Post secondary programs are evaluated on data provided by the PS recipients. PS recipients are also evaluated on completion of projects and attainment of goals stated in their local plans.

In terms of coordinating with other state and federal programs, Department of Education staff are members on a wide variety of councils and taskforces such as the Interagency Workforce Development Committee, the Executive Committee of the Vermont Workforce Development Council, High School Renewal Work Team, Adult Education & Literacy Policy Team, etc. This allows CTE to stay aligned with DOL and Economic Development efforts and also with high school reform efforts.

**B1a. Student definitions (see Part C)**

**B1b. Baseline data for the core indicators of performance under 113(b)(2)  
(see Part C)**

**B1c. Proposed performance levels (see Part C)**

**B2. Programs with technical skill assessments, the estimated percentage of CTE students who take technical skill assessments, and the State's plan for increasing the coverage of programs and students reported in future program years (see forms in Part C)**

Vermont CTE has relied primarily on state approved competency lists, teacher developed exams and a state approved proficiency check off list for each program. At the secondary level, we have also worked at establishing industry recognized credentials in a variety of CTE programs. Vermont has not mandated use of specific assessments or industry recognized credentials. This has resulted in only a small portion of students and programs engaging in skill assessments.

During the grant period, Vermont will identify and establish valid and reliable state assessments to measure and document student proficiencies across the state in select program areas. We will focus on high skill/high wage program areas and on programs with high levels of student enrollment. When possible and appropriate, we will use industry assessments. However, we expect to have to develop and implement state developed assessments to maximize the alignment between state CTE standards and the assessments. From our work to date, we also expect that each program area will likely have an array of assessments rather than a single exam. We plan to create a comprehensive array of assessments that will include both written exams and performance based assessments. Our assessments will be designed to match academic, technical, employability, and "meta" standards defined for each program.

Vermont is also establishing a state performance threshold for the portion of student concentrators who complete the state approved assessments. We include this in our size, scope and quality definitions so that programs failing to administer state approved assessments to their students would lose their eligibility for Perkins funding.

A profile of planned secondary and post secondary assessments during the initial grant year can be found in Part C. As we establish our industry councils and outline new learning standards for our CTE programs, we will also be establishing required student assessments. This will reduce our current dependence on bronze level assessments. A minimum of 50% of our programs will have state approved valid and reliable student assessments by 2013.

State assessments and local assessments will be approved based on content validity (alignment between learning standards and assessment design) and reliability. We are working with GSX Inc. to establish assessment approval criteria and process.

## **V. Tech Prep – consolidated under Title I**

## VI. Financial Requirements

### A1. Description of Rationale for Allocation of Funds

Of the funds made available through the Carl D. Perkins Career and Technical Education Act of 2006, Vermont will make 86% available to eligible recipients. Of this amount, 74% will be directed to secondary eligible recipients and 26% will be directed to postsecondary eligible recipients. There are many more eligible providers at the secondary level (16 CTE Centers) as opposed to the post secondary level (2 PS institutions). To ensure that secondary program funding supports a course of study of sufficient size, scope and quality, it is essential that secondary funding at least maintain prior year levels. We will review this allocation decision, involving all stakeholders, prior to submitting our 09/10 annual amendments and budget.

### A2. Specific Dollar Allocations under Section 131 (a-e)

\$2,838,047 will be allocated among Vermont's 15 secondary career and technical education regions. These funds are allocated to each region according to the distribution rules defined in Section 131. When there are multiple centers or comprehensive high schools within the region, regional funds are divided among each institution in proportion to their six semester average FTE count.

Region		Award	Region		Award
1	Barre	195,057		Lamoille	156,362
2	Bennington	186,312		Middlebury	131,364
3	Bradford	77,944		Newport	189,892
4	Brattleboro	159,775		Randolph	124,498
5	Caledonia/Essex Lyndon St. Johnsbury	42,735 134,020		Rutland	325,405
6	Chittenden Burlington Essex	224,482 379,171		St. Albans	196,013
7	Enosburg	68,639		Springfield	128,836
8	Hartford	117,542		TOTAL	2,838,047



### **A3. Specific Dollar Allocations under Section 132 (a) of the Act**

\$982,878 will be directed to post secondary eligible recipients. These funds will be allocated to each recipient according to the distribution rules defined in Section 132. Pell count data is not yet available, so actual allocations have yet to be determined. There are only two post secondary recipients:

Community College of Vermont  
Vermont Technical College

### **A4. Allocations to any consortia: Secondary**

One of Vermont's 15 technical education regions is served by a consortium of two comprehensive high schools. Vermont statute allows the two comprehensive high schools to be recognized as a career and technical education center and to submit a consolidated local Perkins plan. Monies allocated to the region, using the distribution rules in 131, are distributed to the two high schools in proportion to their six semester average FTE count.

### **A5. Allocations to any consortia: Post Secondary**

There are no post secondary consortia.

### **A6. Adjustments to Reflect Changed School District Boundaries**

There have been no changes in school district boundaries.

### **A7. Alternative allocation formula**

There is no request for alternative allocation formulas.

## VII. Edgar Certifications & Other Assurances

I hereby certify:

1. That the State Board of Education is eligible to submit the Vermont State Plan for Career and Technical Education. [34 CFR 76.104(a)(1)]
2. That the Vermont State Board of Education has delegated authority to the Department of Education to perform the functions of the State under the program. [34 CFR 76.104(a)(2)]
3. That Vermont may legally carry out each provision of the Plan for Career and Technical Education. [34CFR 76.104(a)(3)]
4. That all provisions of the Plan are consistent with Vermont State Law. [34 CFR 76.104(a)(4)]
5. That the Commissioner of Education has the authority under state law to receive, hold, and disburse federal funds under the Plan. [34 CFR 76.104(a)(5)]
6. That the Commissioner of Education has the authority to submit the Plan. [34 CFR 76.104(a)(6)]
7. That the Department of Education has adopted and formally approved the Plan. [34 CFR 76.104(a)(7)]
8. That the Plan is the basis for Vermont's operation and administration of the Plan. [34 CFR 76.104(a)(8)]
9. The Department of Education assures compliance with Title I and the provisions of the State Plan, including the provision of a financial audit of funds to be received under this title which may be included as part of an audit of other Federal and State programs. [Sec.122(c)(11)]
10. The Department of Education assures that none of the funds expended under Title I will be used to acquire equipment (including computer software) in any instance in which such acquisition results in a direct financial benefit to any organization representing interests of the purchasing entity, the employees of the purchasing entity, or any affiliate of such an organization. [sec.122(c)(12)]
11. The Department of Education has waived the minimum \$15,000 allocation as required in section 131(c )(1) for local education agencies located in the rural, sparsely populated area of Vermont's Northeast Kingdom.
12. The Department of Education will provide, from non-federal sources, for the costs for administration of programs under Perkins IV. {Sec. 323 (A)}

13. The Department of Education and eligible recipients will, to the extent possible, permit personnel from nonprofit private schools offering CTE programming to participate in professional development opportunities funded under Perkins IV. [317(a)]
14. The Department of Education will require eligible recipients to consult with nonprofit private schools in their geographic regions regarding the meaningful participation of their students in CTE programs and activities AND to the extent possible, permit secondary students attending nonprofit private schools to attend CTE programs and activities funded under this act. [317(b)(1)(2)]
15. The Department of Education has signed and submitted ED Form 80-0013 and the form for Assurance for Non-construction Programs. (See below) Further, Vermont has a standard condition for all grant awards that extends the debarment and suspension requirements of 34 CFR Part 85 to its eligible recipients.

**As the duly authorized representative of the eligible agency, I hereby certify that the Vermont Department of Education will comply with the above certifications and assurances.**



Richard Cate, Commissioner  
Vermont Department of Education

March 28, 2008  
DATE


## CERTIFICATION REGARDING LOBBYING

Applicants must review the requirements for certification regarding lobbying included in the regulations cited below before completing this form. Applicants must sign this form to comply with the certification requirements under 34 CFR Part 82, "New Restrictions on Lobbying." This certification is a material representation of fact upon which the Department of Education relies when it makes a grant or enters into a cooperative agreement.

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 34 CFR Part 82, for persons entering into a Federal contract, grant or cooperative agreement over \$100,000, as defined at 34 CFR Part 82, Sections 82.105 and 82.110, the applicant certifies that:

- (a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making of any Federal grant, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal grant or cooperative agreement;
- (b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;
- (c) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-grants and contracts under grants and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above certification.

NAME OF APPLICANT	PR/AWARD NUMBER AND / OR PROJECT NAME
Vermont Department of Education	V048A070045A Career & Technical Education
PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE	
Richard H. Cate, Commissioner	
SIGNATURE	DATE
	March 28, 2008

## ASSURANCES - NON-CONSTRUCTION PROGRAMS


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**Note:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management, and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§ 290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874) and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), regarding labor standards for federally assisted construction sub-agreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1721 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, AAudits of States, Local Governments, and Non-Profit Organizations.≡
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL  	TITLE  Commissioner	
APPLICANT ORGANIZATION  Vermont Department of Education		DATE SUBMITTED  March 28, 2008

Standard Form 424B (Rev. 7-97) Back

## **Part B: Budget Forms**

**PERKINS IV BUDGET TABLE - PROGRAM YEAR 1**  
(For Federal Funds to Become Available Beginning on July 1, 2008)

**I. TITLE I: CAREER AND TECHNICAL EDUCATION ASSISTANCE TO STATES**

A. Total Title I Allocation to the State	\$ <u>4,214,921</u>
B. Amount of Title II Tech Prep Funds to Be Consolidated with Title I Funds	\$ <u>237,187</u>
C. Total Amount of Combined Title I and Title II Funds to be distributed under section 112 ( <i>Line A + Line B</i> )	\$ <u>4,452,108</u>
D. Local Formula Distribution ( <i>not less than 85%</i> ) ( <i>Line C x 86%</i> )	\$ <u>3,820,925</u>
1. Reserve ( <i>not more than 10% of Line D</i> )	\$ <u>0</u>
a. Secondary Programs ( <u>  </u> of <i>Line D</i> )	\$ <u>          </u>
b. Postsecondary Programs ( <u>  </u> of <i>Line D</i> )	\$ <u>          </u>
2. Available for formula allocations ( <i>Line D minus Line D.1</i> )	\$ <u>3,820,925</u>
a. Secondary Programs (74% of <i>Line D.2</i> )	\$ <u>2,838,047</u>
b. Postsecondary Programs ( <u>  </u> 26% of <i>Line D.2</i> )	\$ <u>982,878</u>
E. State Leadership (not more than 10%) ( <i>Line C x 8.5%</i> )	\$ <u>381,183</u>
a. Nontraditional Training and Employment (\$ <u>60,000</u> )	
b. Corrections or Institutions (\$ <u>45,575</u> )	
F. State Administration (not more than 5%) ( <i>Line C x 5.9%</i> ) <b>small state</b>	\$ <u>250,000</u>
G. State Match ( <i>from non-federal funds</i> ) <sup>1</sup>	\$ <u>282,668</u>

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<sup>1</sup> The eligible agency must provide non-Federal funds for State administration of its Title I grant in an amount not less than the amount it provided in the preceding year.



**PERKINS IV BUDGET TABLE - PROGRAM YEAR 1**  
(For Federal Funds to Become Available Beginning on July 1, 2008)

**II. TITLE II: TECH PREP PROGRAMS**

- A. Total Title II Allocation to the State \$ \_237,187\_
- B. Amount of Title II Tech Prep Funds to Be Consolidated  
with Title I Funds \$ \_237,187\_
- C. Amount of Title II Funds to Be Made Available  
For Tech-Prep (*Line A less Line B*) \$ \_\_\_\_\_ 0\_
- D. Tech-Prep Funds Earmarked for Consortia \$ \_\_\_\_\_
- a. Percent for Consortia  
(*Line D divided by Line C*) [ \_\_\_\_\_ %]
- b. Number of Consortia \_\_\_\_\_
- c. Method of Distribution (*check one*):  
\_\_\_\_\_ Formula  
\_\_\_\_\_ Competitive
- E. Tech-Prep Administration \$ \_\_\_\_\_
- a. Percent for Administration  
(*Line E divided by Line C*) [ \_\_\_\_\_ %]

## **PART C: ACCOUNTABILITY FORMS**

## I. Student Definitions

### A. Secondary Level

<p><b>Participants</b> – a secondary student who is enrolled in a state approved technical education program that addresses the core academic and technical competencies identified as needed for employment and/or further education in a career cluster</p>
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<p><b>Concentrators</b> – a secondary student enrolled in a state approved technical education program who has completed 350 hours of the program instruction or who has completed half of the program's required skill assessments</p>
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### B. Postsecondary/Adult Level

<p><b>Participants</b> – A postsecondary student who has earned at least 6 credits required by their degree/certificate program and is enrolled in at least 1 academic or CTE 3 credit course in their degree/certificate program during the fall semester of the reporting year</p>
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<p><b>Concentrators</b> – A post secondary student who has completed 50% of the credits required for earning the program's degree or certificate.</p>
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## II. FINAL AGREED UPON PERFORMANCE LEVELS FORM (FAUPL) - SECONDARY LEVEL

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Indicator & Citation	Measurement Definition	Measurement Approach	Baseline	Year Two 7/1/08-6/30/09	Year Three 7/1/09-6/30/10
<b>1S1 Academic Attainment – Reading/ Language Arts 113(b)(2)(A)</b>	<p><b>Numerator:</b> Number of CTE concentrators who have met the proficient or advanced level on the Statewide high school <b>reading/language arts</b> assessment administered by the State under Section 1111(b)(3) of the Elementary and Secondary Education Act (ESEA) as amended by the No Child Left Behind Act based on the scores that were included in the State’s computation of adequate yearly progress (AYP).</p> <p><b>Denominator:</b> Number of CTE concentrators who took the ESEA assessment in <b>reading/language arts whose scores were included in the State’s computation of AYP.</b></p>	<b>State Assessment Records</b>	New state exams make a true baseline impossible; estimated from pilot data	<b>L: 46%</b> <b>A:</b>	<b>L: 46.5%</b> <b>A:</b>
<b>1S2 Academic Attainment - Mathematics 113(b)(2)(A)</b>	<p><b>Numerator:</b> Number of CTE concentrators who have met the proficient or advanced level on the Statewide high school <b>mathematics</b> assessment administered by the State under Section 1111(b)(3) of the (ESEA) as amended by the No Child Left Behind Act based on the scores that were included in the State’s computation of adequate yearly progress (AYP).</p> <p><b>Denominator:</b> Number of CTE concentrators who took the ESEA assessment in <b>mathematics whose scores were included in the State’s computation of AYP.</b></p>	<b>State Assessment Records</b>	New state exams make a true baseline impossible; estimated from pilot data	<b>L: 11%</b> <b>A:</b>	<b>L: 11.5%</b> <b>A:</b>
<b>2S1 Technical Skill Attainment 113(b)(2)(A)(ii)</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who passed state recognized technical skill assessments that are aligned with industry-recognized standards, if available and appropriate, during the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> who took the state recognized assessments during the reporting year.</p>	<b>State and Local Student Records</b>	Use of new technical skill assessments rough estimate	<b>L: 62.5%</b> <b>A:</b>	<b>L: 63%</b> <b>A:</b>

Indicator & Citation	Measurement Definition	Measurement Approach	Baseline	Year Two 7/1/08-6/30/09	Year Three 7/1/09-6/30/10
<b>3S1 Secondary School Completion</b>  <b>113(b)(2)(A)(iii) (I-III)</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who earned a regular secondary school diploma, earned a General Education Development (GED) credential as a State-recognized equivalent to a regular high school diploma (if offered by the State) or other State-recognized equivalent (including recognized alternative standards for individuals with disabilities), or earned a proficiency credential, certificate, or degree, in conjunction with a secondary school diploma (if offered by the State) during the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> who left secondary education during the reporting year.</p>	<b>State and Local Administrative Records</b>	<b>95%</b>	<b>L: 95%</b>  <b>A:</b>	<b>L: 95%</b>  <b>A:</b>
<b>4S1 Student Graduation Rates</b>  <b>113(b)(2)(A)(iv)</b>	<p><b>Numerator:</b> Number of CTE concentrators who, in the reporting year, were included as graduated in the State's computation of its graduation rate as described in Section 1111(b)(2)(C)(vi) of the ESEA.</p> <p><b>Denominator:</b> Number of CTE concentrators who, in the reporting year, were included in the State's computation of its graduation rate as defined in the State's Consolidated Accountability Plan pursuant to Section 1111(b)(2)(C)(vi) of the ESEA.</p>	<b>State Administrative Records</b>	<b>92.4%</b>	<b>L: 92%</b>  <b>A:</b>	<b>L: 93%</b>  <b>A:</b>
<b>5S1 Secondary Placement</b>  <b>113(b)(2)(A)(v)</b>	<p><b>Numerator:</b> Number of known status <u>CTE concentrators</u> who left secondary education the previous school year and were identified as placed in postsecondary education or advanced training, in the military service, or employment in the second quarter following the program year in which they left secondary education (i.e., unduplicated placement status for CTE concentrators who left secondary education (i.e. graduated or withdrew) by June 30, 2007 and were identified by local survey as in placement between October 1, 2007 and December 31, 2007).</p> <p><b>Denominator:</b> Number of known status <u>CTE concentrators</u> who left secondary education during the previous school year.</p>	<b>State &amp; Local Administrative Records</b>	<b>95%</b>	<b>L: 95%</b>  <b>A:</b>	<b>L: 95%</b>  <b>A:</b>

<b>Indicator &amp; Citation</b>	<b>Measurement Definition</b>	<b>Measurement Approach</b>	<b>Baseline</b>	<b>Year Two 7/1/08-6/30/09</b>	<b>Year Three 7/1/09-6/30/10</b>
<b>6S1 Nontraditional Participation 113(b)(2)(A)(vi)</b>	<p><b>Numerator:</b> Number of <u>CTE participants</u> from underrepresented gender groups who participated in a program that, as specified by NAPE, leads to employment in nontraditional fields during the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE participants</u> who participated in a program that, as specified by NAPE, leads to employment in nontraditional fields during the reporting year.</p>	<b>State &amp; Local Administrative Records</b>	<b>15.7%</b>	<b>L: 16%</b> <b>A:</b>	<b>L: 16.5%</b> <b>A:</b>
<b>6S2 Nontraditional Completion 113(b)(2)(A)(vi)</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> from underrepresented gender groups who completed a program that leads to employment in nontraditional fields during the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> who completed a program that leads to employment in nontraditional fields during the reporting year.</p>	<b>State &amp; Local Administrative Records</b>	<b>15.1%</b>	<b>L: 15.5%</b> <b>A:</b>	<b>L: 16%</b> <b>A:</b>

### III. FINAL AGREED UPON PERFORMANCE LEVELS FORM (FAUPL) - POST SECONDARY LEVEL

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Indicator & Citation	Measurement Definition	Measurement Approach	Baseline	Year Two 7/1/08-6/30/09	Year Three 7/1/09-6/30/10
<b>1P1 Technical Skill Attainment 113(b)(2)(B)(i)</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who passed state recognized technical skill assessments that are aligned with industry-recognized standards, if available and appropriate, during the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> who took state recognized technical skill assessments during the reporting year.</p>	<b>Local Administrative Records</b>	<b>67%</b>	<b>L: 68%</b>  <b>A:</b>	<b>L: 68.5%</b>  <b>A:</b>
<b>2P1 Credential, Certificate, or Degree 113(b)(2)(B)(ii)</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who received an industry-recognized credential, a certificate, or a degree during the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> who graduated or withdrew from postsecondary education during the reporting year.</p>	<b>Local Administrative Records</b>	<b>40%</b> New cohort  Rough estimate	<b>L: 40%</b>  <b>A:</b>	<b>L: 41%</b>  <b>A:</b>
<b>3P1 Student Retention or Transfer 113(b)(2)(B)(iii)</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who remained enrolled in your postsecondary institution or transferred to another 2- or 4-year postsecondary institution during the reporting year and who were enrolled in postsecondary education in the fall of the previous reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> who were enrolled at your postsecondary institution in the fall of the previous reporting year and who did not earn an industry-recognized credential, a certificate, or a degree in the previous reporting year.</p>	<b>Local Administrative Records</b>	<b>80%</b> New cohort  Rough estimate	<b>L: 80%</b>  <b>A:</b>	<b>L: 81%</b>  <b>A:</b>

<b>Indicator &amp; Citation</b>	<b>Measurement Definition</b>	<b>Measurement Approach</b>	<b>Baseline</b>	<b>Year Two 7/1/08-6/30/09</b>	<b>Year Three 7/1/09-6/30/10</b>
<b>4P1 Student Placement 113(b)(2)(B)(iv)</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who were placed or retained in employment, or placed in military service or apprenticeship programs in the 2<sup>nd</sup> quarter following the program year in which they left your postsecondary institution</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> who graduated or withdrew from postsecondary education during the reporting year.</p>	<b>Local Administrative Records</b>	<b>95%</b>	<b>L: 95%</b> <b>A:</b>	<b>L: 95%</b> <b>A:</b>
<b>5P1 Nontraditional Participation 113(b)(2)(B)(v)</b>	<p><b>Numerator:</b> Number of <u>CTE participants</u> from underrepresented gender groups who participated in a program that, as specified by NAPE, leads to employment in nontraditional fields during the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE participants</u> who participated in a program that, as specified by NAPE, leads to employment in nontraditional fields during the reporting year.</p>	<b>Local Administrative Records</b>	<b>18%</b>	<b>L: 18.5%</b> <b>A:</b>	<b>L: 19 %</b> <b>A:</b>
<b>5P2 Nontraditional Completion 113(b)(2)(B)(v)</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> from underrepresented gender groups who graduated/completed a program that, as specified by NAPE, leads to employment in nontraditional fields during the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> who completed a program that leads to employment in nontraditional fields during the reporting year.</p>	<b>Local Administrative Records</b>	<b>14.5%</b>	<b>L: 15%</b> <b>A:</b>	<b>L: 15.5%</b> <b>A:</b>



**TECHNICAL SKILL ASSESSMENTS – Profile by Secondary Level Program**

Cluster	Secondary Program	# Programs	Est. Students	Assessment	Standard <i>Gold-Silver-Bronze</i>	% Concentrators Completing Assessment
Agriculture & Natural Resources	Diversified Agriculture	2	22	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Agricultural Mechanics	5	113	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Forestry	9	195	State approved array of commercial assessments: Game of Logging 1-4 Nat'l Safe Tractor Exam Career Safe Wild Land Fire Fighting	Silver	20%
	Horticulture	6	81	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Environmental Science	3	25	Teacher developed exams and observations against the state approved competency list	Bronze	90%
Architecture & Construction	Construction Trades	17	375	State Approved Assessment w/ AGC Proficiency Certificate	Gold	50%
	CADD – Drafting & Design Engineer Tech	10 2	160 27	NOCTI Exam	Silver	20%
	Woodworking	1	10	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Electrical Occupations Electrical Engineering	2 1	57* 12	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	HVAC	2	30	HEAT Exam from HVAC Excellence	Gold	20%

	Heavy Equipment	2	36	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Industrial Maintenance	1	21	Teacher developed exams and observations against the state approved competency list	Bronze	90%
Arts & Communication	Visual Communication	2	70*	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Communications	1	16	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Graphic Arts	5	62	GAERF Introduction to Graphic Communications Exam	Silver	20%
	Performing Arts	4	63	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Performing Arts – Dance	1	21	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Printing	1	2	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Video	8	150	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Animation/Web Design Multi Media Design Design & Illustration	2 4 3	43 72 ?	WOW Web Designer Apprentice and Comp TIA i-net+	Silver	20%
	Electrical Engineering RV	1	36	Teacher developed exams and observations against the state approved competency list	Bronze	90%
Business	Management	6	80	Teacher developed exams and observations against the state approved competency list	Bronze	90%

	Administrative Support	8	87	ASK Core Exam-Fundamental Level Microsoft Office Specialist in 1 program area	Gold	20%
	Medical Records	1	11	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Financial Support	7	145	ASK Core Exam Fundamental Level	Gold	20%
Education & Training			0			
Finance			0			
Government			0			
Health	Allied Health	12	255	State Approved Personal Care Attendant Assessment	Gold	20%
	Dental Assisting	1	29	Dental Assisting National Board Exam	Gold	10%
	Ophthalmic Assistant	1	6	Teacher developed exams and observations against the state approved competency list	Bronze	90%
Hospitality & Tourism	Culinary Arts	14	299	State/Industry approved written & practical assessments – VT Hospitality Certificate	Gold	20%
	Restaurant Management	1	13	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Hotel Management	3	32	Lodging Management Program Year 1 Exam	Silver	20%
Human Services	Family & Community	1	5	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Cosmetology	7	182	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Salon Management	1	18	Teacher developed exams and observations against the state approved competency list	Bronze	90%

	Human Services	13	295	VCCICC Level I state approved assessments	Gold	20%
Information Technology	Programming	2	14	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Network Management	4	19	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Computer Repair	9	145	Comp TIA A+ certification	Silver	20%
Law & Public Safety	Legal Services	1	23	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Law Enforcement	4	75	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Fire & Emergency Svcs	4	62	Firefighter I certification exam from VT Fire Service Training Council AND First Responder EMT exam	Silver	10%
Manufacturing	Precision Machining	4	33	NIMS assessments 1-3 OR 1-2 and 9	Silver	20%
	Metal Fabrication	4	80	Teacher developed exams and observations against the state approved competency list	Bronze	50%
	Industrial Mechanics	2	48	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Engineering Tech	1	21	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Electrical Engineering	1 <i>(Bratt)</i>	15	Teacher developed exams and observations against the state approved competency list	Bronze	90%
Marketing	Marketing	4	86	Nat'l Retail Association Customer Service Assessment	Gold	20%

Transportation	Auto Technology	16	404	GST State Approved Assessments plus S/P2 and VT State Inspection Certification	Gold	25%
	Auto Body	4	99	Dupont Auto Finish Certification assessments (written/practical)	Silver	20%
	Aviation Mechanics	1	22	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Diesel Mechanics	2	25	Teacher developed exams and observations against the state approved competency list	Bronze	90%
	Warehousing	1	4	Teacher developed exams and observations against the state approved competency list	Bronze	90%

33 programs with Bronze assessments (1316 students 30%)

9 programs with Silver assessments (1010 students 24%)

10 programs with Gold assessments (2005 students 46%)

4331 total students

52 total programs

## TECHNICAL SKILL ASSESSMENTS – Profile by Post Secondary Level Programs

Cluster	Major	School	Credential	Grad. Credits	Students	% concentrators	Assessment	Standard <i>Gold-Silver- Bronze</i>	% concentrators Completing Assessment
Agriculture & Natural Resources	Dairy Farm Management	VTC	Associates	66	45	100%	GPA 2.0	Bronze	100%
	Agribusiness	VTC	Associates	66	45	100%	GPA 2.0	Bronze	100%
	Landscape & Horticulture	VTC	Associates	69	44	100%	GPA 2.0	Bronze	100%
	Veterinary Technology	VTC	Associates	70	47	100%	GPA 2.0	Bronze	100%
Architecture & Construction	Architecture & Building	VTC	Associates	70	53	50%	GPA 2.0	Bronze	100%
	Construction Management	VTC	Associates	65	63	100%	GPA 2.0	Bronze	100%
	Civil Engineering	VTC	Associates	70	54	80%	GPA 2.0	Bronze	100%
	CADD	CCV	Associates	60	24	50%	3 <sup>rd</sup> party proj	Silver	8%
Arts & Communication	Multimedia Communication	CCV	Associates	60	new	30%	3 <sup>rd</sup> party proj	Silver	30%
	Graphic Design	CCV	Associates	60	97	30%	3 <sup>rd</sup> party proj	Silver	50%
	Visual Arts	CCV	Associates	60	43	30%	3 <sup>rd</sup> party proj	Silver	30%
	Website Design	VTC	Associates						
Business	Accounting	CCV	Associates	60	238	50%	State exam	Silver	27%
	Administrative Mgt.	CCV	Associates	60	62	45%	GPA 2.0	Bronze	43%
	Business	CCV	Associates	60	509	33%	State exam	Silver	30%
	Computer Business Apps	CCV	Certificate	28	7	40%	GPA 2.0	Bronze	100%
	Business Technology	VTC	Associates	69	69	100%	GPA 2.0	Bronze	100%

Education & Training	Education Studies	CCV	Associates	60	150	36%	Praxis I	Gold	10%
	Early Childhood Education	CCV	Associates	60	175	37%	State exam	Silver	40%
	Para-educator	CCV	Certificate	25	9	33%	GPA 2.0	Bronze	100%
Finance	Currently no PS programming in this cluster.								
Government	Currently no PS programming in this cluster.								
Health	Nursing	VTC	Associates	35 & PN	108	100%	Nat'l Exam	Gold	98%
	Practical Nursing	VTC	Certificate	47	160	100%	Nat'l Exam	Gold	94%
	Respiratory Therapy	VTC	Associates	64	43	100%	CRT Exam	Gold	100%
	Dental Hygiene	VTC	Associates	72	34	100%	Nat'l Dental	Gold	50%
	Vision Care	CCV	Associates	64	13	75%	National exam	Gold	20%
	Medical Assistant	CCV	Certificate	21	21	43%	GPA 2.0	Bronze	100%
	Lab Tech	CCV	Associates	60	New		National exam	Gold	
	Lab Assistant	CCV	Certificate	34	3	100%	GPA 2.0	Bronze	100%
	Allied Health	CCV	Certificate	35	212	34%	GPA 2.0	Bronze	100%
	Health Care Office Asst	CCV	Certificate	26	12	25%	GPA 2.0	Bronze	100%
Hospitality	Currently no PS programming in this cluster.								
Human Services	Not a priority career pathway. Programs ineligible for Perkins funding.								
Information Technology	Computer System Mgt	CCV	Associates	60	106	40%	National exam	Gold	30%
	Network Administration	CCV	Associates	63	33	50%	National exam	Gold	20%
	Computer System Mgt.	CCV	Certificate	29	9	50%	National exam	Gold	10%
	Computer Software Engineering	VTC	Associates	63	16	100%	GPA 2.0	Bronze	100%
	IT	VTC	Associates	67	31	100%	GPA 2.0	Bronze	100%

Law & Public Safety	Criminal Justice	CCV	Associates	60	155	34%	GPA 2.0	Bronze	100%
Manufacturing	Currently no PS programming in this cluster.								
Marketing	Not a priority career pathway. Programs ineligible for Perkins funding.								
STEM	Electrical Engineering	VTC	Associates	69	39	90%	GPA 2.0	Bronze	100%
	Mechanical Engineering	VTC	Associates	69	75	79%	GPA 2.0	Bronze	100%
	Computer Engineering	VTC	Associates	69	49	82%	GPA 2.0	Bronze	100%
Transportation	Auto Technology	VTC	Associates	66	52	100%	NAEF & ASE	Gold	50%
	Diesel Power Tech	VTC	Associates	62	8	100%	NATEF & AED	Gold	New
	Aeronautical	VTC	Associates	68	4	100%	GPA 2.0	Bronze	100%

22 programs with Bronze assessments (1115 students 46%)

7 programs with Silver assessments (577 students 24%)

12 programs with Gold assessments (716 students 30%)

2408 total students

41 total programs

NOTE: As a community college, CCV has a large portion of part time students. Consequently, their percentage of concentrators and concentrators with assessments is much lower than Vermont Technical College. VTC largely has full time students in their 2 year programs.



## Appendix

## Appendix A: Priority Career Pathways

Career Clusters		Career Pathways		Employed	Open Positions	High Skill	High Wage	High Demand Tot Employ 4036 OR 40+ openings
Code	Title	Code	Title					
1.0000	Agriculture, Food and Natural Resources	1.10000	Food Products and Processing Systems Pathway	1073	17			
		1.20000	Plant Systems Pathway	2622	70			
		<b>1.30000</b>	<b>Animal Systems Pathway</b>	<b>8131</b>	<b>225</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		1.40000	Power Structural and Technical Systems Pathway	1255	36			
		1.50000	Natural Resources Systems Pathway	1089	30			
		<b>1.60000</b>	<b>Environmental Service Systems Pathway</b>	<b>1073</b>	<b>46</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		1.70000	Agribusiness Systems Pathway	30	0			
			TOTAL AGRICULTURE CLUSTER	15273				
2.0000	Architecture and Construction	<b>2.10000</b>	<b>Design/Pre-Construction Pathway</b>	<b>1553</b>	<b>42</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		<b>2.20000</b>	<b>Construction Pathway</b>	<b>22616</b>	<b>692</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		2.30000	Maintenance/Operations Pathway	4465	175			
			TOTAL CONSTRUCTION CLUSTER	28634				
3.0000	Arts, Audio/Video Technology and Communications	3.10000	Audio and Video Technology and Film Pathway	794	20	<b>Y</b>		
		3.20000	Printing Technology Pathway	1245	33			
		<b>3.30000</b>	<b>Visual Arts Pathway (combined w/3.1</b>	<b>741</b>	<b>22</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		<b>3.40000</b>	<b>Performing Arts Pathway</b>	<b>1240</b>	<b>41</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		3.50000	Journalism and Broadcasting Pathway	1591	26	<b>Y</b>	<b>Y</b>	
		3.60000	Telecommunications Pathway	168	20	<b>Y</b>	<b>Y</b>	
			TOTAL ARTS CLUSTER	5779				

4.0000	Business, Management and Administration	<b>4.10000</b>	<b>Management Pathway</b>	<b>3511</b>	<b>112</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		<b>4.20000</b>	<b>Business Financial Management and Accounting</b>	<b>10990</b>	<b>294</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		<b>4.30000</b>	<b>Human Resources Pathway</b>	<b>1444</b>	<b>46</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		4.40000	Business Analysis Pathway	856	25	<b>Y</b>	<b>Y</b>	
		4.50000	Marketing	2733	78			
		<b>4.60000</b>	<b>Administrative and Information Support Pathway</b>	<b>22411</b>	<b>244</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
			TOTAL BUSINESS CLUSTER	41945				
5.0000	Education and Training	<b>5.10000</b>	<b>Administrative and Information Support Pathway</b>	<b>1516</b>	<b>54</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		<b>5.20000</b>	<b>Professional Support Services Pathway</b>	<b>1953</b>	<b>84</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		<b>5.30000</b>	<b>Teaching/Training Pathway</b>	<b>23206</b>	<b>755</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
			TOTAL EDUCATION CLUSTER	26675				
6.0000	Finance	6.10000	Financial and Investment Planning Pathway	994	26	<b>Y</b>	<b>Y</b>	
		6.20000	Business Financial Management Pathway	189	5	<b>Y</b>	<b>Y</b>	
		6.30000	Banking and Related Services Pathway	2947	119			
		<b>6.40000</b>	<b>Insurance Services Pathway</b>	<b>1993</b>	<b>45</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
			TOTAL FINANCE CLUSTER	6123				
7.0000	Government and Public Administration	7.10000	Governance Pathway	876	13	<b>Y</b>		
		7.20000	National Security Pathway	0	0			
		7.30000	Foreign Service Pathway	0	0			
		7.40000	Planning Pathway	1067	53			
		7.50000	Revenue and Taxation Pathway	518	18	<b>Y</b>	<b>Y</b>	
		<b>7.60000</b>	<b>Regulation Pathway</b>	<b>1452</b>	<b>50</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		7.70000	Public Management and Administration Pathway	2773	94			
			TOTAL GOVERNMENT CLUSTER	6686				
8.0000	Health Science	<b>8.10000</b>	<b>Therapeutic Services Pathway</b>	<b>20613</b>	<b>870</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		<b>8.20000</b>	<b>Diagnostic Services Pathway</b>	<b>1832</b>	<b>70</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		8.30000	Health Informatics Pathway	1085	40	<b>Y</b>		<b>Y</b>
		8.40000	Support Services Pathway	544	26	<b>Y</b>	<b>Y</b>	
		8.50000	Biotechnology Research and Development	262	11	<b>Missing Data</b>		
			TOTAL HEALTH CLUSTER	24336				

9.0000	Hospitality and Tourism	<b>9.10000</b>	<b>Restaurants and Food/Beverage Services Pathway</b>	<b>27216</b>	<b>1321</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		9.20000	Lodging Pathway	11085	371			
		9.30000	Travel and Tourism Pathway	727	24			
		9.40000	Recreation, Amusements and Attractions Pathway	2853	107			
			TOTAL HOSPITALITY CLUSTER	41881				
10.0000	Human Services	10.10000	Early Childhood Development and Services Pathway	3910	167			
		10.20000	Counseling and Mental Health Services Pathway	935	38	<b>Y</b>	<b>Y</b>	
		10.30000	Family and Community Services Pathway	4818	229	<b>Y</b>		
		10.40000	Personal Care Services Pathway	5634	231	<b>Y</b>		
		10.50000	Consumer Services Pathway	543	17	<b>Y</b>	<b>Y</b>	
			TOTAL HUMAN SERVICES CLUSTER	15840				
11.0000	Information Technology	<b>11.10000</b>	<b>Network Systems Pathway</b>	<b>1378</b>	<b>62</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		<b>11.20000</b>	<b>Information Support and Services Pathway</b>	<b>1688</b>	<b>42</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		11.30000	Interactive Media Pathway	0	0			
		<b>11.40000</b>	<b>Programming and Software Development Pathway</b>	<b>3691</b>	<b>134</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
			TOTAL INFORMATION TECH CLUSTER	6757				
12.0000	Law, Public Safety, Corrections and Security	12.10000	Correction Services Pathway	1009	22			
		12.20000	Emergency and Fire Management Services Pathway (SKILL DATA MISSING)	982	24			
		12.30000	Security and Protective Services Pathway	1388	48			
		<b>12.40000</b>	<b>Law Enforcement Services Pathway</b>	<b>6383</b>	<b>104</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		<b>12.50000</b>	<b>Legal Services Pathway</b>	<b>2203</b>	<b>49</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
			TOTAL LAW & PUBLIC SAFETY CLUSTER	11965				
13.0000	Manufacturing	<b>13.10000</b>	<b>Production Pathway</b>	<b>19646</b>	<b>491</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		13.20000	Manufacturing Production Process Development Pathway	754	18	<b>Y</b>	<b>Y</b>	
		<b>13.30000</b>	<b>Maintenance, Installation and Repair Pathway</b>	<b>6406</b>	<b>193</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
		13.40000	Quality Assurance Pathway	0	0			
		13.50000	Logistics and Inventory Control	428	10			
		13.60000	Health, Safety and Environmental Assurance	0	0			
			TOTAL MANUFACTURING CLUSTER	27234				

14.0000	Marketing Sales and Service	14.10000	Management and Entrepreneurship Pathway	0	0			
		14.20000	Professional Sales and Marketing Pathway	16966	740			
		14.30000	Buying and Merchandising Pathway	20985	876			
		14.40000	Marketing Communications and Promotion Pathway	0	0			
		14.50000	Marketing Information Management and Research	521	24	Y	Y	
		14.60000	Distribution and Logistics Pathway	0	0			
		14.70000	E-Marketing Pathway	0	0			
			TOTAL MARKETING CLUSTER	38472				
15.0000	Science, Technology, Engineering and Mathematics	15.10000	Engineering and Technology Pathway	4625	106	Y	Y	Y
		15.20000	Science and Mathematics Pathway	1466	38	Y	Y	
			TOTAL STEM CLUSTER	6091				
16.0000	Transportation, Distribution, and Logistics	16.10000	Transportation Operations Pathway	10720	260			
		16.20000	Logistics Planning and Management Services Pathway (WAGE DATA MISSING)	161	3	Y		
		16.30000	Warehousing and Distribution Center Operations Pathway	6321	199			
		16.40000	Facility and Mobile Equipment Maintenance	5140	190	Y	Y	Y
		16.50000	Transportation Systems/ Infrastructure Planning, Man.	0	0			
		16.60000	Health, Safety and Environmental Management Pathway	0	0			
		16.70000	Sales and Service Pathway	1626	29			
			TOTAL TRANSPORTATION CLUSTER	23968				
State Totals				327,619	10,794			
STATE TOTALS FOR 28 SELECTED PRIORITY PATHWAYS				211,061	6,384		137,000	
% of State Total				64%	59% of total projected openings		84% of workers above median wage	

**High Skill, High Wage and High Demand  
Career Clusters and Pathways  
With Occupations**

CLUSTER	PATHWAY & # EMPLOYED	OCCUPATIONS
<b>Agriculture, Food and Natural Resource Cluster</b>	<b>Animal Systems Pathway (8131)</b>	Veterinary Assistants Laboratory Animal Caretakers Veterinary Technologists and Technicians Zoologists and Wildlife Biologists Animal Scientists Veterinarians
	<b>Environmental Service Systems Pathway (1073)</b>	Environmental Science/Protection Technicians Water and Liquid Waste Treatment Plant and System Operators Environmental Engineering Technicians Occupational Health and Safety Technicians Occupational Health and Safety Specialists Environmental Engineers
<b>Architecture and Construction Cluster</b>	<b>Design/Pre-Construction Pathway (1553)</b>	Landscape Architects Surveyors Interior Designers Mechanical Drafters Civil Engineering Technicians Architects, Except Landscape and Naval Civil Engineers
	<b>Construction Pathway (22616)</b>	Carpenters Plumbers and Steamfitters Electricians Construction and Building Inspectors Electrical Power-Line Installers and Repairers Cost Estimators First-Line Supervisors/Managers of Construction Electrical and Electronics Repairers Powerhouse, Substation, and Relay Technicians Heating, Air Conditioning, and Refrigeration Technicians Construction Managers

<b>Art and Communications Cluster</b>	<b>Visual Arts/Audio AV Pathways(741)</b>	<b>Sound Engineering Technicians</b> <b>Audio and Video Equipment Technicians</b> <b>Graphic Designers</b> <b>Photographers</b> <b>Commercial and Industrial Designers</b> <b>Fine Artists, Painters, Sculptors, Illustrators</b> <b>Multi-Media Artists and Animators</b>
	<b>Performing Arts Pathway(1240)</b>	<b>Writers and Authors</b> <b>Producers and Directors</b> <b>Choreographers</b> <b>Music Directors</b> <b>Film and Video Editors</b>
<b>Business, Management and Administration Cluster</b>	<b>Management Pathway(3511)</b>	<b>Agents and Business Managers of Artists, Performers</b> <b>Administrative Services Managers</b> <b>Managers</b> <b>Public Relations Managers</b> <b>Medical and Health Services Managers</b> <b>Purchasing Managers</b> <b>General/Operations Managers</b>
	<b>Business Financial Management and Accounting (10990)</b>	<b>Payroll Clerks</b> <b>Bookkeeping, Accounting, and Auditing Clerks</b> <b>Accountants and Auditors</b> <b>Financial Managers</b>
	<b>Human Resources Pathway(1444)</b>	<b>Human Resources Assistants</b> <b>Compensation/Benefits Specialists</b> <b>Training and Development Specialists</b> <b>Human Resources, Training, and Labor Relations</b> <b>Compensation and Benefits Managers</b> <b>Human Resources Managers</b> <b>Training and Development Managers</b>
	<b>Administrative and Information Support Pathway (22411)</b>	<b>Computer Operators</b> <b>Legal Secretaries</b> <b>Executive Secretaries and Administrative Assistants</b> <b>Public Relations Specialists</b> <b>First-Line Supervisors/Managers of Support Workers</b> <b>Court Reporters</b>

<b>Education and Training Cluster</b>	<b>Administrative and Support Pathway (1516)</b>	<b>Education Administrators, Preschool/Child Care Center</b> <b>Instructional Coordinators</b> <b>Education Administrators, Postsecondary</b> <b>Education Administrators, Elementary and Secondary School</b>
	<b>Professional Support Services Pathway (1953)</b>	<b>Library Technicians</b> <b>Audio-Visual Collections Specialists</b> <b>Librarians</b> <b>Educational, Vocational, and School Counselors</b> <b>Clinical, Counseling, and School Psychologists</b>
	<b>Teaching/Training Pathway (23206)</b>	<b>Preschool Teachers, Except Special Education</b> <b>Adult Literacy, Remedial Education, and GED Teachers</b> <b>Teachers, Postsecondary</b> <b>Kindergarten Teachers, Except Special Education</b> <b>Elementary School Teachers, Except Special Education</b> <b>Middle School Teachers, Except Special and Vocational Education</b> <b>Vocational Education Teachers, Middle School</b> <b>Secondary School Teachers, Except Special and Vocational Education</b> <b>Vocational Education Teachers, Secondary School</b> <b>Special Education Teachers, Preschool, Kindergarten, &amp; Elementary</b> <b>Special Education Teachers, Middle School</b> <b>Special Education Teachers, Secondary School</b>
<b>Finance Cluster</b>	<b>Insurance Services Pathway (1993)</b>	<b>Insurance Claims and Policy Processing Clerks</b> <b>Insurance Sales Agents</b> <b>Insurance Underwriters</b> <b>Claims Adjusters, Examiners, and Investigators</b> <b>Actuaries</b>
<b>Government and Public Administration</b>	<b>Regulation Pathway (1452)</b>	<b>Meter Readers, Utilities</b> <b>Transportation Inspectors</b> <b>Financial Examiners</b> <b>Compliance Officers</b> <b>Regulatory Investigators</b>
<b>Health Science Cluster</b>	<b>Therapeutic Services Pathway (20613)</b>	<b>Psychiatric Technicians</b> <b>Opticians, Dispensing</b> <b>Dental Assistants &amp; Hygienists</b> <b>Surgical Technologists</b> <b>Occupational Therapists &amp; Assistants</b> <b>Registered &amp; Licensed Practical Nurses</b> <b>Physical Therapist &amp; Assistants</b> <b>Respiratory Therapists</b> <b>Dietitians and Nutritionists</b> <b>Speech-Language Pathologists</b> <b>Radiation Therapists</b> <b>Physician Assistants</b> <b>Pharmacists</b>



<b>Hospitality and Tourism Cluster</b>	<b>Diagnostic Services Pathway (1832)</b>	<b>Radiologic Technologists and Technicians Medical and Clinical Laboratory Technologists Diagnostic Medical Sonographers Nuclear Medicine Technologists Physicians and Surgeons</b>
	<b>Restaurants and Food/Beverage Services Pathway (27216)</b>	<b>Cooks/Bakers Supervisors of Food Preparation/Workers Chefs and Head Cooks Food Service Managers</b>
<b>Information Technology Cluster</b>	<b>Network Systems Pathway (1378)</b>	<b>Network/Computer Systems Administrators Database Administrators Network Systems Analysts Data Communications Analysts</b>
	<b>Information Support and Services Pathway (1688)</b>	<b>Computer Support Specialists Computer Specialists</b>
	<b>Programming and Software Development Pathway (3691)</b>	<b>Computer Programmers Computer Systems Analysts Computer Software Engineers, Applications Computer Software Engineers, Systems Software Computer and Information Systems Managers</b>
<b>Law and Public Safety Cluster</b>	<b>Law Enforcement Services Pathway (6343)</b>	<b>Protective Service Workers Police and Sheriff's Patrol Officers First-Line Supervisors Managers of Police and Detectives</b>
	<b>Legal Services Pathway (2203)</b>	<b>Legal Support Workers Administrative Law Judges Adjudicators, and Hearing Officers Paralegals Legal Assistants Law Clerks Lawyers</b>

<b>Manufacturing Cluster</b>	<b>Production Pathway (19646)</b>	<b>Cutters and Trimmers</b> <b>Tool Grinders, Filers, and Sharpeners</b> <b>Machine Setters, Operators, Tenders</b> <b>Computer-Controlled Machine Tool Operators</b> <b>Power Plant Operators</b> <b>Jewelers/Precious Stone and Metal Workers</b> <b>Crushing, Grinding, and Polishing Machine Operators</b> <b>Machinists</b> <b>Numerical Control Programmers</b> <b>Model Makers</b> <b>Tool and Die Makers</b> <b>Managers of Production and Operating Workers</b> <b>Industrial Production Managers</b>
	<b>Maintenance, Installation and Repair Pathway (6406)</b>	<b>Security and Fire Alarm Systems Installers</b> <b>Electric Motor, Power Tool, and Related Repairers</b> <b>Industrial Machinery Mechanics</b> <b>Computer, Automated Teller Repairers</b> <b>Electrical/Electronics Repairers</b> <b>Managers of Mechanics, Installers, and Repairers</b> <b>Telecommunications Line Installers/Repairers</b>
<b>Science, Technology, Engineering and Mathematics</b>	<b>Engineering and Technology Pathway(4625)</b>	<b>Electro-Mechanical Technicians</b> <b>Electrical and Electronics Drafters</b> <b>Architectural and Civil Drafters</b> <b>Electrical and Electronic Engineering Technicians</b> <b>Mechanical Engineers</b> <b>Materials Engineers</b> <b>Chemical Engineers</b> <b>Health and Safety Engineers</b> <b>Industrial Engineers</b> <b>Electrical Engineers</b> <b>Electronics Engineers</b> <b>Engineering Managers</b> <b>Computer Hardware Engineers</b>
<b>Transportation, Distribution, and Logistics Cluster</b>	<b>Facility and Mobile Equipment Maintenance (5140)</b>	<b>Motorcycle Mechanics</b> <b>Automotive Body Repairers</b> <b>Automotive Service Technicians and Mechanics</b> <b>Motorboat Mechanics</b> <b>Bus and Truck Mechanics and Diesel Engine Specialists</b> <b>Recreational Vehicle Service Technicians</b> <b>Mobile Heavy Equipment Mechanics</b> <b>Aircraft Mechanics and Service Technicians</b> <b>Automotive Glass Installers and Repairers</b>

## **Dear Applicants:**

This information packet contains three main components. The first part explains the 5-year strategic plan requirements. The second part provides specific data forms and content requirements for your one-year local plan including forms which will establish your institutional and program eligibility. The third part contains forms which will be used to identify your proposed improvement projects and the relationship of these projects to required performance levels and use of 08/09 Perkins funds. Please be sure that your submitted Perkins local plan contains all the required sections and is organized in the correct format.

**To avoid interruption of your funding, your Perkins Plan must be submitted by June 1, 2008 and officially approved by July 1, 2008. Within two weeks of the June 1 submission, you will be notified of your application's status:**

1. Plan Approved
2. Plan 'substantially approvable' with only minor corrections
3. Plan not approvable and must be re-submitted following required revisions.

No FY09 Perkins funds may be expended prior to the date your Perkins Plan is approved. Substantially approvable is defined as:

- ❖ All parts of Perkins Plan are predominantly complete and accurate
- ❖ All budget items are in compliance with legislation
- ❖ Minor errors or omissions needing technical correction

If you have questions regarding your local Perkins plan, please contact me at 828-5133 or at [kay.charron@state.vt.us](mailto:kay.charron@state.vt.us).

# General Requirements for Perkins IV Local Plan

## Introduction

The new Perkins legislation largely reflects the intentions and requirements of the 1998 Perkins. However, they have added some new changes and given greater emphasis to earlier directives such as rigorous academics, professional development and assessment development. The Perkins IV federal legislation also established several important new requirements:

- **Programs of Study** – a multi-year sequence of courses/programs that includes a non-duplicative progression of academic and technical content that raises the level of rigor required of CTE students to the same academic standards expected of all other students and strengthens the implementation of career clusters/pathways that lead to an industry credential and readiness for postsecondary education
- **Technical skill assessments** – each state must move toward valid and reliable assessments for demonstration of student knowledge and skill proficiency, including academic skills.
- **Quality Improvement** – emphasizes that Perkins monies must be used for funding comprehensive improvement projects that advance full implementation of career clusters and programs of study
- **Continuous and Comprehensive Professional Development** – Perkins funds can no longer be used for isolated workshops and conferences; professional development expenditures must be part of a planned, ongoing training sequence tied to specific CTE improvement goals
- **Local Performance Indicators** – In prior years, Vermont performance indicator targets were negotiated with USDOE. Perkins IV mandates that **each recipient** must negotiate and establish targets with the VT DOE. There are also mandates for required improvement plans for any individual target that was not achieved.
- **State Direction** – Perkins IV asks states to provide greater leadership and direction for how funds can be used. For example, VT DOE has provided greater clarity and guidance in “high demand, high skill, high wage or emerging occupations”, “all aspects of and industry” and criteria regarding “size, scope and quality” of programs and services at an eligible institution.

It will take several years of diligent and focused work for Vermont CTE programs to come into full compliance with Perkins IV. To begin moving toward compliance with these new federal directions, it was necessary to modify some of the general requirements and formats for the local plans from that used in prior years. On the following page is an outline of the FY 2009 Perkins IV Local Grant Application.

THE PERKINS LOCAL PLAN APPLICATION IS AN **OUTLINE**  
FOR A WRITTEN GRANT REQUEST

PERKINS LOCAL PLAN OUTLINE

PART ONE OF PERKINS LOCAL PLAN:

**I. Five-Year Strategic Local Plan 2008-2013**

PART TWO OF PERKINS LOCAL PLAN:

**II. One-Year, Local Plan FY 2009**

- A. Institutional Eligibility and Data**
- B. Program Eligibility and Data**
- C. Local Plan Questions**

PART THREE OF PERKINS LOCAL PLAN

**III. Perkins Funded Projects with Alignment to Performance Targets**

- A. Proposed Projects and Funding, Alignment with Performance Standards and Strategies**
- B. Budget Forms--The Projects and Action Steps inform the Budget Summary.**

APPENDIX

- A: Vermont Goals for CTE**
- B: Required and Permissive Use of Perkins Funds**
- C: Selected Perkins Definitions**
- D: Program Eligibility Data**
- E: Approved Perkins Local Plan Activities FY 2008**
- F: Sample Budget Form**

## **PART I-PERKINS 5-YEAR STRATEGIC LOCAL PLAN**

There are 7 questions to be addressed in the 5-year Perkins Local Strategic Plan. On the following page is a summary of these questions. On subsequent pages we have provided further guidance regarding these questions and development of your strategic responses. Your 5-year Plan should be based on what works best for your institution and within the parameters of your institution's plan, vision and resources. Use the VT 5-Year State Plan document as a guide and reference in your institutional plan. While this plan is presented as an application for Perkins IV funding, your institutional strategic plan is not limited to Perkins IV funding. Also remember, these are five year goals. The items you list in the 5-year plan do not have to be accomplished in one year but will direct and inform your 1-year local plan projects and action items during the subsequent years of Perkins IV.

The performance targets identify individual yearly targets of performance of your programs and your institution. The plan addressing how you will meet or exceed these targets will be a 5-year plan.

The Perkins 5-year, strategic plan is a part of your Perkins local plan but it only has to be completed once during the operation of the new Perkins Act IV. In the future years of the authorization of the Perkins IV Act, you may update or change this part of your local Perkins plan. Your 5-year strategic local plan will be available at VT DOE and used as a reference for annual monitoring and compliance activities as required by State and Federal rules.

The questions included in this framework for the 5-year strategic local plan are the mandatory items cited in Carl D. Perkins Career and Technical Education Improvement Act of 2006, Section 134 and the "VT Goals For CTE". In 2007, Vermont DOE convened a Perkins State Plan Advisory Committee, with secondary and post secondary representatives, to guide the Department of Education in development of the Perkins 5-year State Plan. This committee established five goals for CTE improvement during the 2008-2013 grant period. The five goals are:

1. Students in career and technical education programs will have strong career guidance services that include career development plans which articulate a multi-year sequence of academic and technical courses as a program of study leading to a student's career goals.
2. Students in career and technical education programs will gain proficiency in the employability skills demanded by 21<sup>st</sup> century workplaces.
3. Student learning outcomes in career and technical education programs will be shaped by industry standards and measured by valid and reliable assessments linked to skill credentials that offer value to students (e.g. PS credit; higher entry wage; registered apprenticeship hours).
4. Students in career and technical education programs will be able to transition efficiently from secondary to post secondary programs or employment.
5. Students in career and technical education programs will increase their participation in quality workplace learning experiences in industry settings pertinent to their career cluster/pathway.

VT DOE consultants are available to provide further guidance and help with this and all parts of your Perkins local plan. Perkins grant application technical assistance sessions will be scheduled in the Spring.

## FIVE-YEAR STRATEGIC LOCAL PLAN QUESTIONS

1	<u>Public Engagement:</u> <ol style="list-style-type: none"> <li>How will your institution involve a wide variety of stakeholders in the development, implementation and evaluation of CTE programs and how such individuals and entities are informed about, and assisted in understanding the requirements of Perkins, including CTE programs of study?</li> </ol>
2	<u>Programs of Study:</u> <ol style="list-style-type: none"> <li>How will your institution align programming to high skill/high wage pathways?</li> <li>How will your institution provide students with strong experience in, and understanding of, all aspects of an industry?</li> <li>How will your institution encourage CTE students at the secondary level to enroll in rigorous and challenging courses in core academic subjects?</li> <li>How will your institution assure that programs comply with size, scope and quality requirements?</li> <li>What are your measurable quality improvement goals and how will your institution initiate, improve and/or expand CTE programs during the 5 year grant period?</li> </ol>
3	<u>Academic Rigor/Integration:</u> <ol style="list-style-type: none"> <li>How will your institution improve the academic and technical skills of students participating in CTE programs through integration?</li> <li>How will your institution ensure that students who participate in CTE programs are taught to the same coherent and rigorous content aligned with challenging academic standards as are taught to all other students?</li> <li>What process will your institution utilize to evaluate and continuously improve performance?</li> </ol>
4	<u>Professional Development:</u> <ol style="list-style-type: none"> <li>How will your institution provide comprehensive professional development (including initial teacher preparation) for academic, guidance and administrative personnel which promote the integration of coherent and rigorous content aligned with challenging academics?</li> </ol>
5	<u>Special Populations/NonTraditional Opportunities:</u> <ol style="list-style-type: none"> <li>How will your institution review CTE programs, identify and adopt strategies to overcome barriers for special populations, provide programs that enable special populations to meet local performance levels, and provide activities to prepare special populations, including single parents and displaced homemakers, for high-skill, high-wage, or high-demand occupations that will lead to self sufficiency.</li> <li>How will your institution assure that individuals who are members of special populations will not be discriminated against based on this status?</li> <li>How career guidance and academic counseling will be provided to CTE students, including linkages to future education and training opportunities.</li> </ol>
6	<u>Guidance and Counseling:</u> <ol style="list-style-type: none"> <li>How will your institution provide career guidance and academic counseling to students, including information regarding transitions to postsecondary opportunities?</li> </ol>
7	<u>Teacher Retention:</u> <ol style="list-style-type: none"> <li>What efforts will be made to improve the recruitment and retention of CTE teachers, faculty, and career guidance and academic counselors, including underrepresented groups; and to facilitate the transition to teaching from business and industry?</li> </ol>

# Perkins 5-Year Strategic Local Plan

## 1. Public Engagement:

**Directions:** Provide a description of how your institution will solicit and engage a wide variety of stakeholders in the development, implementation and evaluation of CTE programs.

Describe how such individuals and entities are informed about and assisted in understanding the requirements of Perkins, including CTE plans of study and how they were involved in the development of the institution's Strategic Plan for Perkins IV. Provide a list of individuals that were involved and the organization or position within your community.

## 4. **Programs of Study:**

*All Perkins* eligible secondary and postsecondary recipients will prepare to implement at least one State approved Program of Study in 09/10. As stated in the VT 5-Year Perkins State Plan, State approval requires that programs of study:

- Lead to employment in high skill, high wage, high demand, or emerging careers identified on the VT DOE list of Priority Career Pathways
- Incorporate skill standards in all aspects of the industry as described in the VT DOE model and aligned with business needs, expectations and methods
- Offer instructional curriculum, facilities and equipment essential to attaining the skill standards
- Use contextual and applied curricula and instruction as the primary delivery strategy, including such activities as CTSO participation, extended work/project-based and/or worksite learning experiences; collaborative projects with industry/high schools as described in 2c above
- Integrate rigorous academic and career and technical education courses that provide a non-duplicative and progressive learning sequence supporting attainment of the skill standards
- Span grades 9 through 14
- Use state approved valid and reliable student assessments to document attainment of skill standards
- Offer a matrix of value added student benefits for attaining skill proficiency (e.g. state approved industry recognized credentials; dual enrollment opportunities and articulated transitions to PS; apprenticeship credits; scholarships; employment and wage preferences; advanced standing in PS; PS credits)

### **By 2013,**

- eligible secondary and postsecondary recipients will offer CTE programming in at least 5 of the national career clusters.
- eligible secondary and postsecondary recipients will offer at least eight State approved Programs of Study. Perkins recipients must show annual progress toward this 2013 goal by implementing additional programs of study each year until achieving the required 8 pathways.
- eligible secondary recipients will demonstrate participation in regularly scheduled coordination meetings with administrators from all high schools in your region
- eligible secondary recipients will offer grade 9 & 10 introductory CTE courses in a program of study leading to grade 11 and 12 CTE programming in at least 5 career clusters and at every high school in your region.
- eligible secondary recipients will offer grade 11 & 12 extended collaborative projects with at least three high schools in your region and in at least 5 career clusters that involve both academic and CTE students in a relevant industry application that includes rigorous academics (e.g. math students at high school partner with CTE students in Manufacturing program to design a product for a real local industry)

### **Directions:**

This is the critical and substantial driving force of Perkins IV and should be the focus of your institutional Perkins plan. A majority of Perkins activities through 2013 will likely relate to this initiative. As such, a thoughtful and comprehensive evaluation of institutional readiness to move in this direction and the development of measurable improvement goals and substantive strategies/action will be required for the approval of your institutional plan. Please reference the VT State 5-Year Perkins Plan throughout the development of this portion in particular.

The table below will be used as a framework to assess the current institutional status regarding the elements of program of study development and implementation. You must develop measurable improvement goals addressing each element which has not been optimally



achieved. Lastly, you will need to develop strategies that you will utilize to reach each goal. Your plan must provide estimated 5 year timelines throughout this portion.

Related Resources:

“VT Goals for CTE”

“Approaches to Industry Alignment”, Global Skills Exchange, Dr. Joe Lualhati

VT DOE Size, Scope and Quality Criteria

VT DOE All Aspects of the Industry

[www.careerclusters.org](http://www.careerclusters.org)

VT DOE High Skill, High Demand, High Wage or Emerging Occupations Listings

POS Elements	Current Status Self Assessment	Measurable Improvement Goals 2008-2013	Strategies & Timelines
Programs are high skill, high wage, high demand pathways			
Incorporate VT DOE "all aspects of industry"			
Provide facilities, equipment, instruction essential for attainment of skills			
Use applied curricula & instruction including CTSO, work-based learning, collaboration with industry and high schools			
Intergrate rigorous academic courses, supporting skill attainment			
Span grades 9-14			
Use VT DOE approved assessments to document skills and knowledge attainment			
Student benefits identified for each program			
Programming spans 5 Career Clusters			
Institution offers programming minimum of 8 pathways			
Secondary recipients participate in coordination meeting with high school administrators			
Secondary recipients offer introductory courses grade 9-10, leading to 11-12 programming			
Secondary recipients offer grade 11-12 collaborative industry application projects with 3 sending schools & span 5 clusters			

**2. Academic Rigor/Integration:**

**Directions:** Describe how your institution will evaluate and provide continuous improvement of students' academic and technical skills in CTE programs by strengthening these components through integrations of coherent and rigorous content, aligned with challenging academic and technical standards.

**4. Professional Development:**

**Directions:** Describe the comprehensive professional development plan for your institution. This plan should include technical and academic faculty, guidance personnel and administrators. The plan must include in-service training over the five year period which will cover:

- a. effective integration and use of challenging academic and career and technical education provided jointly with academic teachers to the extent practicable;
- b. effective teaching skills based on research that includes promising practices;
- c. effective practices that enable teachers to modify curriculum and instruction that aligns with all aspects of the industry and the size, scope and quality requirements
- d. internship programs that provide relevant business experience; and
- e. programs designed to train teachers specifically in the effective use and application of technology to improve student learning.

Describe how your institution will ensure that the nature of the professional development activities funded by Perkins IV will be high quality, sustainable, intensive and focused in order to have a lasting and positive impact on quality instruction and learning. Outcomes of professional development activities should be clearly stated in advance with identified evaluation measures and follow-up activities. (e.g. Teachers will learn how to embed the 21<sup>st</sup> century skills into their technical skill content.)

**5. Special Populations:** (see Appendix C for Special Populations definitions)

**Directions:** Describe the process your institution will utilize to identify and implement strategies to overcome barriers for students enrolling in CTE programs that would be nontraditional for their gender. Describe how you will provide programs and services that will provide special population students with equal access to Perkins IV funded activities and will not be discriminated against on the basis of their status as members of special populations. Additionally, describe the institutional plan that provides services to special population students designed to enable these students to meet or exceed each Performance Indicator.

**6. Guidance and Counseling:**

**Directions:** Describe how you will provide career guidance and academic counseling to students enrolled in career and technical programs, including information regarding transitions to postsecondary opportunities.

**7. Recruitment and Retention of Faculty, Career Guidance and Academic Counselors:**

**Directions:** Describe how your institution will improve the recruitment and retention of CTE teachers, faculty, and career guidance and academic counselors, including underrepresented groups. Provide a description of how you will facilitate the transition of interested individuals to teaching from business and industry.

## PART II -ONE-YEAR LOCAL PLAN SECONDARY INSTITUTIONS

- A. Institutional Eligibility Data Sheet (TBD)
- B. Program Eligibility Data Sheets (one per program—TBD)
- C. FY2009 Local Plan Questions, Funded Projects and Relationship with Performance Standards

### **A. Institutional Eligibility:**

The table below contains the VT DOE program information for your institution. These are the eligible programs based upon the information in our data base. The CIP Code is established by the alignment of the States Career Cluster Model and the CIP Code table provided by USDOE. Please review this data carefully. Particular attention should be given to a review of each programs' assigned competency list. Your selected competency list should align with the Cluster/Pathway of your program. Remember that the information includes only programs you operated in FY08. Don't forget to include new programs that you intend to offer in FY09; noting "new" next to the program name. If you have not received VT DOE approval for these "new" programs, contact your center consultant immediately. Only VT DOE approved programs can be included in this State Plan and tuition reimbursement.

Write a description of each program. This description must include as a minimum, the following information:

- Expected student outcomes, (e.g. 25% of students earn IRC)
- duration of program, (number of hours required to complete program)
- occupations for which program prepares students, (based on previous graduate placement data)
- VT DOE approved IRC's
- Postsecondary institutions with articulations/dual credits
- assessments utilized in the program (i.e. NOCTI)
- any relevant prerequisites or companion courses students are encouraged to complete

Thorough descriptions are a required element of this application. This information will be used to update and create modifications within our data collection system.

***Sample:*** Culinary Arts is a 700 hour program offering students entry level skills in food purchasing, food safety and sanitation, food preparation, nutrition, and bakery. Students also learn general skills of customer service and hospitality. They are exposed to all aspects of restaurant operation. Students operate a local café in town. Students are expected to complete the program in two school years. After program completion, students are prepared for employment as beginning cooks and food preparation kitchen staff. Successful completers have earned Serve Safe certificates.  
*Prerequisites:* 10<sup>th</sup> grade math skills.  
*Companion Courses:* Business Management  
*Articulations:* NECI 6 credits

*Expected Student Outcomes: 25% of students transition to post secondary; 25% of students earn PS dual credits; 25% of students earn VT Hospitality Certificate; 2 students earn ProStart Certificate*

NOTE: Recipient-specific data on select performance indicators to comply with the size, scope and quality requirements will be provided to each Perkins eligible applicant. Data will be provided at both the institutional and program level. This will assist in identifying areas for improvement.

**B. Program Eligibility:**

See Appendix D

Identification of center wide improvement projects you would like to conduct in FY09. Remember that a comprehensive improvement project must contain multiple strategies – isolated initiatives will not be approved. The goal of Perkins IV is to engage in projects of intensity and duration that can really impact the quality of CTE programs and the level of student achievements. Each project will become a sub-grant. Assign the project a sub-grant number. You can use your own format, but each project must describe:

.

### **C. FY2009 Local Plan Questions, Funded Projects and Relationship with Performance Standards**

In this section of the Perkins grant application, you must define your projects and activities proposed for funding in FY 2009. **Begin this process by addressing these questions regarding your institution's strategic plan and your FY 2009 local plan.**

1.	Describe the requirements outlined in your 5-Year Strategic Local Plan (Part I) that are being addressed through your Perkins Funded Projects for this year.
2	Describe how your institution determined the need for these projects and how you will evaluate success of these initiatives.
<i>This section should address the ongoing efforts of your institution's personnel to engage the public in the planning and programming offered to your region. This includes the use of advisory committees, regional advisory boards, parents, students, business and industry stakeholders, trade associations, higher education, sending schools, etc.</i>	
3	Describe how your projects relate to the Vermont CTE Strategic Goals.
<i>Refer to Appendix A: Vermont Goals</i>	
4	Describe your process to develop Programs of Study in collaboration with regional centers and other postsecondary institutions in Vermont, addressing grades 9-14 transitional development, assessments, industry certifications, transitions to postsecondary, all aspects of industry, and size, scope and quality criteria.
<i>Address how your initial implementation in the 2008-09 academic year will transform over the five year period towards more detailed and defined POS development such as coverage of 9-14, future development of assessments and certifications, professional development, postsecondary transitions, , academic rigor, etc. The plan should address how your institution will start with at least one POS, covering at least grades 10-14, and evolve over 5 years to include at least 50% of your programs.</i>	
5	Review your institutional and program data regarding performance levels on page 9 and address the areas shaded in gray. These are the performance areas in need of attention during FY2009. Review the material in Appendix E, relevant to your institutional FY2008 Perkins Local Plan and approved funding. Complete this form, providing an institutional self-assessment which will serve as an initial monitoring document for VT DOE.
<i>Refer to Appendix E: Approved Perkins Local Plan Activities FY 2008</i>	

## **PART III. Perkins Funded Projects with Alignment to Performance Targets**

### **A. Proposed Projects – Identified Projects to Implement Designed to Improve Institutional, Program and Student Performance**

(See Appendix B: Required and Permissive Use of Perkins Funds)

**Note: ACTION STEPS INCLUDE ALL PLANNED EXPENDITURES:**

<b>PROJECT NAME:</b>	
<b>PERFORMANCE STANDARD(S) ALIGNMENT:</b>	
<b>REQUIRED USE OF FUNDS ADDRESSED:</b>	
<b>Action Steps: (We will do this (x,y,z) to accomplish (a,b,c))</b>	<b>Amount</b>
1.	\$
2.	\$
3.	\$
4.	\$

<b>PROJECT NAME:</b>	
<b>PERFORMANCE STANDARD(S) ALIGNMENT:</b>	
<b>REQUIRED USE OF FUNDS ADDRESSED:</b>	
<b>Action Steps: (We will do this (x,y,z) to accomplish (a,b,c)</b>	<b>Amount</b>
1.	\$
2.	\$
3.	\$
4.	\$

<b>PROJECT NAME:</b>	
<b>PERFORMANCE STANDARD(S) ALIGNMENT:</b>	
<b>REQUIRED USE OF FUNDS ADDRESSED:</b>	
<b>Action Steps: (We will do this (x,y,z) to accomplish (a,b,c)</b>	<b>Amount</b>
1.	\$
2.	\$
3.	\$
4.	\$

## **B. Budget Forms**

Appendix F: Sample Budget Form

FY 2009 Perkins Local Plan Application



State Performance Thresholds - POST SECONDARY LEVEL

Column 1	Column 2	Column 3	Column 4
Indicator	Measurement Definition	Measurement Calculation	Threshold
<b>VTPS1 CTE Concentrator Rate</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> in reporting year</p> <p><b>Denominator:</b> Number of <u>CTE participants</u> in reporting year</p>	<p># of students in the denominator who have completed at least 50% of the credits required to earn degree/certificate and are enrolled this reporting year</p> <p>Divided by</p> <p># of students enrolled in at least 1 course this reporting year who have earned 6 credits in their degree/certificate program</p>	<b>40%</b>
<b>VTPS2 Technical Skill Assessment Participation Rate</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who completed the state recognized technical skill assessment(s) for their CTE program, during the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> in the reporting period.</p>	<p># of students in denominator who completed the state recognized technical skill assessment(s) for their CTE program this reporting year</p> <p>Divided by</p> <p># of students enrolled this reporting year who have earned at least 50% of the credits required to earn degree/certificate</p>	<b>33%</b>
<b>VTPS3 Earned Industry Recognized Credential</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who earned a state approved industry recognized credential in the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> in the reporting year</p>	<p># of students in denominator who earned a state approved industry recognized credential in this reporting year</p> <p>Divided by</p> <p># of students enrolled this reporting year who have earned at least 50% of the credits required to earn degree/certificate</p>	<b>15%</b>

Indicator	Measurement Definition	Measurement Calculation	Threshold
<b>VTPS4 Transfer to BA/BS Program</b>	<p><b>Numerator:</b> Number of known status <u>CTE concentrators</u> who transferred to a 4 year postsecondary institution during the reporting year</p> <p><b>Denominator:</b> Number of known status <u>CTE concentrators</u> who were enrolled at your post secondary institution in the fall of the previous reporting year who did not graduate (i.e. earn an industry recognized credential, a certificate, or a degree) and were not enrolled at your institution this reporting year</p>	<p># of students in the denominator who transferred to a 4 year PS institution this reporting year</p> <p>Divided by</p> <p># of students who have earned at least 50% of the credits required to earn degree/certificate who were enrolled at your institution in the fall of the previous reporting year but did not graduate or enroll at your institution this reporting year and for whom you have a known placement status</p>	<b>33%</b>
<b>VTPS5 Placement in Relevant Employment</b>	<p><b>Numerator:</b> Number of known status <u>CTE concentrators</u> who graduated or withdrew from PS and were placed or retained in degree relevant employment in the 2<sup>nd</sup> quarter following the program year in which they left postsecondary education</p> <p><b>Denominator:</b> Number of known status <u>CTE concentrators</u> who graduated or withdrew from your postsecondary institution during the reporting year.</p>	<p># of students in denominator who were placed or retained in degree relevant employment in the second quarter following the program year in which they left</p> <p>Divided by</p> <p># of students who have earned at least 50% of the credits required to earn degree/certificate who graduated or withdrew from your PS institution during the reporting year and for whom you have a known placement status</p>	<b>25%</b>
<b>VTPS6 Respondent Placement Rate</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who were employed, in the military, or apprenticeship program in the second quarter following the program year in which they left post secondary education</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> who graduated or withdrew from your postsecondary institution during the reporting year.</p>	<p># of students in denominator who were employed, in the military, or apprenticeship program in the second quarter following the program year in which they left</p> <p>Divided by</p> <p># of students who have earned at least 50% of the credits required to earn degree/certificate who graduated or withdrew from your PS institution during the reporting year</p>	<b>70%</b>

## State Performance Thresholds - SECONDARY LEVEL

Column 1	Column 2	Column 3	Column 4
Indicator	Measurement Definition	Measurement Calculation	Threshold
<b>VTS1 CTE Concentrator Rate</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> in reporting year</p> <p><b>Denominator:</b> Number of <u>CTE participants</u> in reporting year</p>	<p># of students in denominator who complete 350 hours of instruction or half of the program's required skill assessments in reporting year</p> <p>Divided by</p> <p># students enrolled in state approved CTE programs in reporting year</p>	<b>50%</b>
<b>VTS2 Technical Skill Assessment Participation Rate</b>	<p><b>Numerator:</b> Number of CTE concentrators who completed the state recognized technical skill assessment(s) for their CTE program, during the reporting year.</p> <p><b>Denominator:</b> Number of CTE concentrators in the reporting period.</p>	<p># of students in denominator who completed the state recognized technical assessment(s) for their CTE programs during the reporting year</p> <p>Divided by</p> <p># of students who completed 350 hours of instruction or half of the program's required skill assessments in reporting year</p>	<b>33%</b>
<b>VTS3 Relevant Employment</b>	<p><b>Numerator:</b> Number of known status <u>CTE concentrators</u> who left secondary education the previous school year and were identified as placed in relevant employment in the second quarter following the program year in which they left secondary education</p> <p><b>Denominator:</b> Number of known status <u>CTE concentrators</u> who left secondary education during the previous school year.</p>	<p># of students in denominator who were identified as placed in relevant employment in the second quarter following the year they left school</p> <p>Divided by</p> <p># of students who completed 350 hours of instruction or half of the program's required skill assessments and who graduated or left secondary education during the previous school year and for whom you have a known placement status</p>	<b>25%</b>

Indicator	Measurement Definition	Measurement Calculation	Threshold
<b>VTS4 Post Secondary Placement</b>	<b>Numerator:</b> Number of known status <u>CTE concentrators</u> who left secondary education and were identified as in postsecondary education or advanced training in the second quarter following the program year in which they left secondary education <b>Denominator:</b> Number of known status <u>CTE concentrators</u> who left secondary education the previous school year	# of students in denominator who were identified as placed in PS or advanced training in the second quarter following the year they left school  Divided by  # of students who completed 350 hours of instruction or half of the program's required skill assessments and who graduated or left secondary education during the previous school year and for whom you have a known placement status	<b>48%</b>
<b>VTS5 Known Placement Rate</b>	<b>Numerator:</b> Number of CTE concentrators who left secondary education and have a known placement status in the second quarter following the program year in which they left secondary education <b>Denominator:</b> Number of CTE concentrators who left secondary education the previous school year	# of students in denominator with a known placement status in the second quarter following the year they left school  Divided by  # of students who completed 350 hours of instruction or half of the program's required skill assessments and who graduated or left secondary education during the previous school year	<b>70%</b>
<b>VTS6 Earned Industry Recognized Credential</b>	<b>Numerator:</b> Number of <u>CTE concentrators</u> who earned a state approved industry recognized credential in the reporting year.  <b>Denominator:</b> Number of <u>CTE concentrators</u> in the reporting year	# of students in denominator who earned a state approved IRC in reporting year  Divided by  # of students who completed 350 hours of instruction or half of the program's required skill assessments in reporting year	<b>20%</b>

Indicator	Measurement Definition	Measurement Calculation	Threshold
<b>VTS7 Earned PS Credit</b>	<p><b>Numerator:</b> Number of <u>CTE concentrators</u> who earned at least 1 PS credit in the reporting year.</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> in the reporting year</p>	<p># of students in denominator who earned at least 1 PS credit during reporting year</p> <p>Divided by</p> <p># of students who completed 350 hours of instruction or half of the program's required skill assessments in reporting year</p>	<b>2%</b>
<b>VTS8 PTF Student Continuation Rate</b>	<p><b>Nominator:</b> Number of <u>PTF students</u> from previous year who enrolled in a traditional CTE program this reporting year</p> <p><b>Denominator:</b> Number of <u>PTF students</u> from previous year</p>	<p># of students in denominator who enrolled in a traditional CTE program this reporting year</p> <p>Divided by</p> <p># of students who completed a PTF program in a previous school year</p>	<b>25%</b>
<b>VTS9 Academic Readiness for College</b>	<p><b>Nominator:</b> Number of <u>CTE concentrators</u> who "pass" the VT state colleges academic exams to show readiness for college level work</p> <p><b>Denominator:</b> Number of <u>CTE concentrators</u> in the reporting year</p>	<p># of students in the denominator who passed the state colleges academic exams to show readiness for college level work</p> <p>Divided by</p> <p># of students who completed 350 hours of instruction or half of the program's required skill assessments in reporting year</p>	<b>33</b>

## Perkins IV Public Hearing Feedback

- The state plan, while good, seems to focus too heavily on workforce development and does not recognize student interest. Regional tech centers are not just workforce development entities.

While Perkins IV requires VT DOE and eligible recipients to focus on program improvement and performance of students in programs leading to careers in high wage, high skill, and high demand or emerging occupations, there is also a focus on transitions to postsecondary education and rigorous academic skills. There is a shift of emphasis from discrete task training and lower skills to broader knowledge and higher level skill building.
- Within the “size, scope and quality” criteria in the plan, many people spoke in opposition to a mandate to create “satellite” programs. They did not see this as the solution to expansion of career and tech education to more secondary students. It may be one of many options but mandating just this one is not the answer. Reasons for opposition included the dislike of a mandate, narrow focus of satellite options, lack of conversation and prior budget planning with high schools and tech centers in development of this mandate and questions whether regions with more than one CTE school (e.g. Lyndon and St Johnsbury) already qualify for this mandate. Comments were heard that the State Plan seems to be designed to weaken the regional centers.

VT DOE has reviewed the satellite program requirement in relation to the intent to expand the accessibility of CTE programming to more students. There was good feedback from stakeholders regarding a variety of ways to reach the intended goal. We eliminated the satellite program requirement and replaced it with a different strategy to more directly address the intent of getting more students enrolled in CTE programming.
- Regarding Programs of Study covering grades 9-14, it will take time to evolve to this since Vermont’s tech education system is currently organized around grades 11-12. What resources can DOE provide to assist in the transition?

VT DOE will provide a state-wide template to institutions and technical assistance. Transitional language in the local application strategic plan can address how an institution intends to proceed towards this goal.
- Canaan High School is not currently on the list of Perkins eligible institutions as was the case in the past. Due to the rural nature of the school, how can we maintain this program and continue to receive Perkins funding. Removing Canaan from eligibility seems contrary to the Commissioner of DOE plan to expand CTE programs to more students. The school is at a geographic disadvantage but as a K-12 school, better prepared to address academic rigor.

There are a number of alternative funding mechanisms to address the continuation of these programs. VT DOE has suggested collaboration with the eligible regional center as one means to provide continued program improvement funds.
- The wording of the plan seems to strongly imply that the CTE system in Vermont is broken and needs fixing.

Continuous improvement, which is the intent of Perkins, is not meant to reflect a “broken system”. Rather, it is intended to direct activities and resources to focus on program improvement and student performance improvement. VT DOE reviewed the language of the State Plan to insure the clarity of this intent.

- NECAP (State NCLB assessment) is not the appropriate instrument to measure academic skill attainment for CTE students.  
This is the measurement required by US DOE for Perkins.
- The State Plan ignores the positive qualities of the regional center model.  
VT DOE has reviewed the language of the State Plan to insure that the focus of the language is on program improvement. Regional centers are the eligible institutions for Perkins IV due to the positive results of this institutional models.
- The State Plan oversteps the bounds of CTE accountabilities and should address the secondary system as a whole. Some of the performance measures are beyond the control of regional tech centers.  
VT DOE used the Perkins State Plan as a mechanism to address the future directions of CTE in Vermont, as part of the comprehensive secondary school transformation efforts. While some of the indicators measure student performance prior to enrollment at a regional center, these are required by US DOE. It is nevertheless a measure of secondary student performance.
- State Plan does not provide flexibility for regional centers to decide what they need. (i.e. equipment vs. curriculum development). The plan focuses more on curriculum development while some centers do not need more curriculum development but do need money for equipment.  
The Perkins local application provides an opportunity for eligible recipients to apply for Perkins funding and to provide a mechanism to publish a 5 year strategic plan towards program improvement and student performance improvement.
- Student assessment is a poor method for judging educational quality. National policy for the past 6 years regarding student assessment has failed miserably.  
This is the measurement required by US DOE for Perkins.
- How does VT DOE review their interpretation of Perkins? It appears that VT DOE has taken a much higher level of interpretation of this legislation than is required and challenges the capacity of VT DOE and the CTE system to deliver some of this in the short term.  
VT DOE has participated in a number of opportunities offered by US DOE and organizations such as NASDCTE. Perkins IV provides a threshold of accountabilities for performance and program improvement rather than a ceiling. VT DOE has prepared the State Plan with input from a number of stakeholders; viewing secondary school transformation and the role of CTE in Vermont. This is a five year plan that charts a course of actions to be completed during the 5 year grant period.

- We do need to provide alternative educational options for students. High school transformation efforts of VT DOE cannot happen with regional tech centers alone.  
VT DOE supports and encourages collaboration between high schools and the regional technical education centers as well as business/industry stakeholders as a means of providing more opportunities for students.
- Will Perkins IV funds be permissive to use for Adult Education Coordinators?  
Currently this is a permissive use in the Perkins IV federal legislation. Vermont, however, has the authority under the law to narrow the federal list of permissive uses.
- Can we use Perkins funds to hire a math teacher to improve math skills of our students?  
Perkins funds can assist the integration of rigorous academic content of CTE programs through a number of methods.
- Here are CCV's objections to the original draft of the plan:

1) The first objection was already communicated in my e-mail last Friday, namely there is no mention, as we agreed in our advisory group meeting last December, that an ongoing advisory board would reconsider the current funding distribution between secondary and post-secondary.

Because DOE needs to re-submit annual amendments and budgets, it is not necessary to add such language. We remain committed to this review and have added language in the plan to this effect.

2) CCV's second objection is a more general one, namely, that in its language and argument, the plan has a pronounced slant toward the secondary level of a CTE system in Vermont. Let me provide a few examples here where this is evident.

A.2.e (p.21) Access to Technology -- the plan describes funds available to secondary centers. There is no mention of technology needs for p-s recipients.

A.2.g (p.25) CTE students prepared to graduate with a diploma -- this is entirely about secondary students without any mention of rates for p-s students or the reason for differential rates between CCV and VTC

A.2.h. (p.25) CTE students prepared for postsecondary education or entry to occupations -- again, a description from only the secondary perspective

A.2.i. (p.26) Improve or develop new CTE courses - this is the section where the secondary bias is most evident (btw, should this read Programs, not courses?)

This complaint has some validity. It results for 2 reasons, I think. One reason is that the state plan is formatted by federal questions and requirements – many of their questions (such as A2g and A2h below) specifically inquire about secondary efforts. The second reason is the reality of DOE not having any direct governance over PS. The State Board is the legal entity with authority to manage Vermont's use of Perkins monies, so DOE can set grant requirements, which we do, but we have always avoided trying to regulate PS CTE programming (e.g. program requirements; program approval).



4) Performance targets: the plan states (IV.A.6, p. 36)

a) the plan makes no reference to the fact that p-s recipients will have different target levels, while the state must have a single combined level. We think this should be clearly stated.

b) the target levels for CCV have not yet been determined. We are still working to establish baseline data, since, for nearly all performance indicators, the cohort itself -- "concentrators" -- is new.

c) a 50% completion rate and a 90% retention/transfer rate are not realistic for CCV-- even for concentrators. We have not yet discussed with you if these are realistic combined rates.

d) the indicator about transfer to 4-year baccalaureate programs is too high for CCV and irrelevant for VTC. Nearly 1/3 of CCV's graduates do transfer, but the vast majority of these are students who have majored in Liberal Studies, not technical programs. This target needs radical readjustment -- even if it is a state target, not a federally required one. (CCV still thinks it should not be instituted in year 1 of the plan)

*Because of the new Perkins IV measures and the new definition of concentrator, it is difficult to establish data based targets for next year. DOE worked with the PS recipients and modified the targets that were originally released for feedback.*

5. CCV objects to the requirement that any Perkins funded improvement project must be a minimum of \$50,000.

*To ensure that all Perkins projects are of the size, scope, and quality to truly bring about substantive improvement, the \$50,000 minimum project requirement was not changed.*

6. The **Business Entrepreneurship Knowledge & Skills** described in the state plan will pose huge challenges to incorporate into all programs, and may not be appropriate for all (e.g. medical lab technician, allied health prep certificate.) We think a note should be made about the differential integration of these skills into programs as appropriate.

*This is part of our focus on "all aspects of the industry". This is critical to Vermont's CTE vision and will not be changed.*

## State Industry Skills Standards Councils

**Purpose of Councils:** To create a forum for industry to provide information, direction and support to education and training. The councils are made up of 6-10 representatives from industry, i.e., operations supervisors, managers, human resources personnel; 2 secondary school representatives; 1-2 postsecondary school representatives; organized labor representation; DoE, DoL, and Economic Development representatives. The councils and council members are identified by representatives from DoE with input and collaboration with DoL, Economic Development, the Governor's Office, and the WDC. Size and scope of councils will reflect size and scope of economic clusters, business pathways, and interested employers, and union representatives. Facilitation of the councils will be lead and guided by the DoE, with assistance from DoL and the WDC.

### Council work will include:

1. **Identification of existing and future labor market needs** – this is a 3-4 month process which includes collecting labor market information and data from a variety of sources, including DoL State and Federal data banks, sample regional surveys, council input, regional workforce board data, and anecdotal information. The information is synthesized by a trained expert and effectively conveyed labor and career information in visual and data forms to enable the council to make quality informed decisions and direct workforce development resources. Priorities are set and a 24 month plan to address the top career area infrastructures is developed.
2. **Work ready performance outcomes determined in progression** – both existing industry recognized credentials, including industry certifications, certificates of proficiency and merit badges and the next generation industry based credentials (NGIBC) which include assessment of overarching skills and knowledge (21<sup>st</sup> Century Skills), academic, technical and workplace skills and knowledge applicable to the sector/cluster work as well as degrees, certificates, and other meaningful credentials that align to and support the identified labor market needs are identified and categorized in progression to the degree of importance and value. This procedure defines the workforce development goals and student performance outcomes for the industry sector/cluster, including advanced credentials and career levels in the workplace. The top IRC's, NGIBC's or degrees/certificates should be identified within a 6 month time period as well as defining gaps and a corrective action/NGIBC development plan. In addition, the council will:
  - a. *Review the development of proposed competencies and validate core business functions within each career pathway and multiple end points where students might exit for career employment;*
  - b. *Review the existing program standards and proposed academic, technical, and 21<sup>st</sup> century workplace skills; providing input to educational institutions relative to industry forecasts of needs. The council will be responsible for endorsing/validating the final set of learning standards for each pathway;*
  - c. *Endorse and authorize proposed student assessments for each identified end point along the career pathway, providing the validation of industry alignment for educational programs;*
  - d. *Provide recognition and validation of appropriate state level agreements with post-secondary and industry to establish a value/benefits matrix for students who*

successfully attain learning standards in the pathways (e.g. post-secondary credits; hiring preference/wage differential; apprenticeship hours; summer employment).

3. **A workforce education career pathway and lattice are developed** – processes for delivery of skills within the state and particular regions are defined and recommended to education and training professionals and service providers. In most cases, the delivery mechanisms are developed by education and training professionals with input and assistance from industry council members. The workforce development lattice includes defined sequenced IRCs and NGIBCs, best practice, ranked quality, and cost effective delivery options including classroom, lab based experiences, distance learning, and workbased learning experiences. This process should begin only after the outcomes in # 2 are well defined and recommendations should be on-going being re-visited on an annual basis. Corrective action plan that identifies delivery gaps and suggested solutions are created by the council education representatives. In addition, the council will:
  - a. Determine key career pathways existing within the priority cluster;
  - b. Identify an ideal 9-14 program of study for each career pathway (sequence of learning opportunities students would need to attain learning standards);
  - c. Cross walk the content/learning objectives of existing secondary and post-secondary programs to the learning standards, assessments, and ideal program of study defined for career pathway;
  - d. Identify gaps in existing course structures and needs for new course development and adjustments to existing curriculum;
  - e. Define a final 9-14 program of study that identifies a non-duplicative sequence of academic and technical courses for each career pathway.
4. **A comprehensive career marketing program is developed** – a holistic approach to create demand for workforce development services is created in collaboration with PR and Marketing professionals. Career and training and education services are marketed through an awareness, informational, and persuasive media campaign that includes posters, brochures, radio spots, a sector specific web site and other media targeting parents, guidance professionals, teachers and regional businesses. Key elements that are conveyed include career options and potential earnings and work characteristics; credentials that are essentials for advancing into the career, and forthcoming, the education and/or training programs. Development of the sector specific campaigns should begin initiated upon convening the industry council/cluster and should be launched in alignment with the lattice and pathway implementation. See [www.vermontitcareers.org](http://www.vermontitcareers.org) . In addition, the council will:
  - a. Develop/implement a statewide “enrollment management plan” for each career pathway (i.e. marketing; evaluation/accountability mechanisms; sustainability, information/data management, student retention/success).

# Career Clusters & Pathways

